PART OF A

Lecture

ON

AUDITORY VERTIGO.

Delivered at the National Hospital for the Epileptic and Paralysed.

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WE are occasionally consulted by patients for attacks of vertigo. Sometimes the attack is epileptic, and then the case is infinitely serious; sometimes, at least many think so, it is owing to dyspepsia only, and then it is a thing of comparatively little gravity. Vertigo occurs occasionally as a result of sexual excesses. Some weakly people are giddy and totter if they get up quickly from the recumbent position, but here the attack, if we may call it one, is artificially produced. There is another kind of vertigo which has long been known, but which is not yet widely known—auditory vertigo, or, as it is often called, Menière's disease. It is quite certain that paroxysms of exceedingly severe vertigo occur with ear disease. No experienced person can deny that, even if he denies that there is a relation of cause and effect. Whilst auditory vertigo is the most distressing to the patient, epileptic vertigo is infinitely the most serious of all paroxysms of vertigo. Epileptic vertigo, I must tell you, is often used as a name for a very slight attack of epilepsy—for cases in which there is no true vertigo. I think it would be better to use it as a name for vertigo in slight epileptic paroxysms, or at the onset of severe ones. Thus, if a patient has, in a slight paroxysm of epilepsy, or at the onset of a severe one, the sensation of external objects moving, or of himself moving, I call that sensation epileptic vertigo. I do not call a very slight attack of epilepsy epileptic vertigo if there be neither of these sensations. In no case, indeed, do I conclude that a patient has vertigo unless I learn from him that objects appear to him to move, or that he feels to move.

The diagnosis of the nature of an attack of vertigo is not always easy. We ought to investigate the simpler cases first. There is a very important vertigo we have yet to mention; one, however, which does not come on in attacks; it comes on when the patient walks. I mean vertigo from paralysis of an ocular muscle, or of several ocular muscles. To study vertigo in cases of paralysis of ocular muscles is the most methodical way of beginning the study of vertigoes in general. I think it is unwise to study auditory vertigo and epileptic vertigo before carefully investigating the much simpler case of vertigo from paralysis of ocular muscles.

Our subject to-day is auditory vertigo.[1] The term does not suggest the whole symptomatology of the affection it names, there is much more than giddiness with ear disease in a severe attack. The patient consults you for attacks of giddiness with vomiting, but the symptomatology is usually very much wider than this even. He will tell you that suddenly things seem to move—to move to one side, or to whirl round, or that he himself feels lifted up or pushed forwards. He is unsteady, and his gait is a reel, if walking be possible at all. Even when lying down he feels unsafe, and will grasp the sides of the couch. If he moves his head he is worse. The above vertigo, with reeling, is only one-half of the patient's condition. We may call the two symptoms we have mentioned locomotor symptoms. Vertigo is on the physical side incipient or rudimentary disorder of locomotion. The following additional symptoms we may call "vital." We see that the patient is pale and haggard, that there is profuse perspiration. He tells us that he feels sick, and he may vomit. He has horrible depression, he may say that he feels as if he were going to die, and not unfrequently compares his condition to that in sea-sickness. Another symptom is pain in the head.

The paroxysm may last an hour or more. I have described what occurs in a severe attack; there are minor attacks, such as a little transitory giddiness and unsteadiness. There are also still severer attacks; sometimes the patient loses consciousness. A medical man told me that the first attack occurred in the streets in London. He was taken to a hospital unconscious, and remained so for three hours. Such a seizure would give us a hard task in diagnosis from epilepsy. Subsequently he had attacks without loss of consciousness.

In these cases there is "something wrong with the ear," or ears. Sometimes the patient has been long deaf of one ear before any attack; occasionally it happens that he is rendered deaf at his first attack; there is in other cases great noise in one ear when the paroxysm sets in, or an increase of a noise which exists betwixt the paroxysms.

In these cases the ear is the part in fault. But manifestly all the symptoms we spoke of as locomotor and vital are owing to something wrong with nervous centres. We may put it that the ear is in fault, and that the centres suffer. But this is not, I think, without qualification. Borrowing an idea from Sydney Ringer as to diminished resistance of centres in cases of migraine, I would suggest that any general lowering of health will be a factor in the production of auditory vertigo; the resistance of nervous centres being diminished, they more readily give way to the "irritations" by the ear. In another way of putting it we may say that the nervous centres are healthy in auditory vertigo, except, perhaps, for a defect in their nutrition in common with the rest of the body. They are, nevertheless, as healthy as any of the other centres, but they alone give way, they alone being worried *ab extra*. There is no reasonable doubt that the starting-point is ear disease; these particular paroxysms would not occur even in ill-health unless there were the particular defect ear disease. I find, however, that some patients consider the diagnosis to be nonsensical. A patient may reply that he has long been deaf, and that he does not care about his ear, that he does not come to you for *that*. (Sometimes, however, he does not know himself to be deaf of one ear.) He evidently supposes you are "thinking too curiously," that you are neglecting obvious causes and explaining the ailment by far-fetched and vague theoretical reasoning. The obvious cause to him is usually stomach and liver derangement; very naturally, for he vomits and may bring up much bile. He cannot see what an old aural affection has to do with a recent sudden paroxysm of vertigo, with urgent vomiting, and great prostration. He would be better satisfied, doubtless, by being told that his attack was due to "suppressed gout," to "liver derangement," &c., for these terms are familiar to him, if the explanations given in them are not really more intelligible. Then he may tell us, in confirmation of his hypothesis, that alterative aperients put him right again, not seeing that, the affection being in its nature transitory, he must come right after a time. What Bazzard says of treatment of batches of lightning pains in tabes dorsalis applies here.[2] I don't blame the patient, although I have to combat his notions. Not many years ago I did not know that ear disease was a cause of the symptoms I have mentioned, and I do not doubt in the least that my then erroneous, but quite conscientious, explanations appeared more rational to my patients than those I give now.[3] You must not suppose that an advance in your knowledge of disease will necessarily make you more fitted to obtain your patient's confidence; it fits you to treat him better, and you must get your satisfaction out of that. If you tell a man who sees perfectly well that he has a grave condition of his optic nerves, he is often the reverse of being assured that you understand his case. The ophthalmoscopical examination which you make, simply because he has intense headache and perhaps vomiting, naturally seems to him quite irrelevant. If you told him that he was suffering from severe biliousness he might be satisfied. He may, indeed, reply to the expression of your opinion that he

[1] Brown-Séquard in his lectures, "Physiology and Pathology of the Central Nervous System," 1860, p. 195, and also in "Experimental and Clinical Researches, &c.," 1853, drew attention to the serious disturbance resulting from lesions of the auditory nerves.

[2] THE LANCET, Feb. 14th, 1880.

[3] My attention was first thoroughly drawn to the subject by a masterly paper by Knapp, Archives of Ophthalmology and Otology, vol. ii., No. 1. I gave a short *résumé* of previous opinions on this disease, Med. Times and Gazette, Aug. 17th, 1872. Charcot has published one of the most important cases of Menière's disease. I have given an account of this in the Medical Record, April 22nd and 29th, 1876. A brief account of Menière's disease is given by Ramskill, in Reynolds's System of Medicine, the first account by a physician in the country, I believe.

knows it to be "all liver," and, perhaps, may add that he was always very bilious. One great thing you wish to do is to prevent his becoming blind, but if your iodide of potassium makes him "more bilious" very likely you do not see him again. In intense headache we should always use the ophthalmoscope, and if, as very often happens, you discover nothing wrong in a patient's eyes, he evidently feels that he scores one; he *knew* there was nothing wrong with his eyes. Similarly he often *knows* that there is nothing the matter with his heart, lungs, and kidneys, although we are obliged to examine the chest and urine as a matter of routine. If you get to know that hypermetropia is an occasional cause of severe head trouble, totally incapacitating the subject of it for study, you are in error if you suppose that a correct diagnosis founded on such knowledge will always be acceptable to the patient. Very naturally when he finds that, for a time at least, he can read small type, such an explanation of his symptoms appears to him simply absurd. Many of our patients seem to wish to have a conversation on their cases on some basis (gout, liver, rheumatism, &c.), which makes them feel that they follow the doctor in his investigations, and understand his conclusion. They cannot appreciate a scientific medical investigation. If a patient "who knows something of medical matters" consults you for amaurosis (simple optic atrophy), he naturally thinks you are wandering when, after looking into his eyes, you ask about pains in his legs, and then "tap his knees." If you took his view that the lightning pains in his legs were rheumatic, and that his failure of sight was owing to rheumatism of the optic nerves or their centres, he would be more in harmony with you.

Even medical men who have aural disease very often totally reject the proffered explanation of their attacks of vertigo; many of them also ascribe the ailment to digestive troubles. A medical man had deafness of his left ear, with occasional slight vertigo. One day, walking in his garden, he had pain in his head, was very giddy, fell in some shrubs, and vomited. This was plainly ear-vertigo, as he himself knew. But he had the following diagnoses made of his case by other medical men—(1) Nothing, (2) Nervousness, (3) Deranged stomach.

Be very careful how you interpret acute digestive symptoms. They may be effects, not causes. I imagine that in at least one in five cases of epilepsy the first paroxysm is erroneously put down to stomach derangement. Migraine, unquestionably a nervous affection, is very often similarly explained, and indeed goes under the unfortunate name of "sick headache." Besides, it is very common for cases of fatal brain disease to be explained away in their earliest stages as being caused in this simple manner. It is quite true that as we get older in practice we attach more and more importance to the state of our patient's alimentary system, for plainly our operations are often based on its condition. We always inquire now-a-days about our patient's digestion and regulate his diet, whatever ailment he may have, just as we examine his urine, heart, and arteries. But for my part I attach less and less importance to abnormal states of the digestive system as direct *causes* of definite nervous symptoms. Very often there is no other warrant for the diagnosis of liver affection in cases of intense headache, of vertigo, and of transient loss of consciousness, than sickness and vomiting, with the appearance, perhaps, of bile in the vomit. If anyone from any cause vomits long enough and strongly enough he will bring up bile; indeed, I should take a plentiful supply of bile in the vomit as evidence that the liver was working well. Vomiting is a very general symptom. I mean that it occurs under very many different circumstances—"shock," passage of a biliary or renal calculus, tubercular meningitis, tumour of the brain, migraine, ear disease; then there are the "gastric crises" of tabes dorsalis (Charcot). You do quite right, of course, to note the "stomach symptoms" in auditory vertigo, but you should inquire as to the state of digestion in the intervals of the attacks, when it is often quite good. When the digestion is right in the intervals the "dyspepsia" is paroxysmal, is part of the paroxysm, and no doubt depends on something wrong, not at the stomach end, but at or acting on the central end of the pneumogastric nerve. In a masterly article on "Vomiting in Connexion with Cerebral Disease,"[4] Ferrier brings evidence to show that in cases of vomiting from cerebral or any other disease or morbid condition, irritation of the vagus, centrally or peripherically, is the one thing in common to all. I think it is a good piece of work to make a comparative clinical study of the paroxysmal dyspeptic symptoms of migraine, auditory vertigo, and of those in some cases of tabes dorsalis ("gastric crises" of Charcot).

There is, however, described a "stomach vertigo," and as one of the describers of it is Trousseau, we must consider this matter with great respect. If you will read what Niemeyer calls Trousseau's "life-like description" of it, you will find that he does not really make out a strong case. He says that the attacks generally come on long after digestion, that sometimes a small quantity of food prevents an attack or stops it if it has begun, that stomach vertigo does not differ greatly from auditory vertigo, that the "slightest cause" may bring it on, as a sudden movement of the head, or looking at a range of bars, a trellised wall, or a striped pattern in the hangings of a room. I will read an extract from Niemeyer's well-known work. "As above mentioned, Trousseau believes that these attacks of dizziness depend on dyspepsia; at the same time he acknowledges that in many cases the signs of dyspepsia are so slight as to be readily overlooked. He relates cases of the successful treatment of 'vertige stomacale' by the alternate administration of infusion of quassia and a composition of carbonates of the alkalies. Even from this prescription I have never seen any benefit, and while I must acknowledge that the first attacks of dizziness affecting the patients that I have seen usually occurred after an indigestion, and were accompanied by dyspeptic symptoms, still in none of them were there evident signs of indigestion during the subsequent attacks, which often continued for years. I believe the repetition of the attacks of dizziness to be due to psychical causes." Observe how cautiously Niemeyer writes "usually *occurred after* an indigestion," and "were *accompanied* by dyspeptic symptoms"; he does not say "caused by." Curiously, some people deaf of one ear do not know it until it is pointed out to them. Hence Gowers has well said: "The fact that the patient may be unconscious of a most significant auditory defect lessens the value of former observations as evidence of the definite character of stomachal vertigo."[5] I think Gowers will turn out to be right in what he has further written:—"My own conviction is that, in the vast majority of the cases in which a vertigo of definite and uniform character is apparently excited by gastric disturbance, an auditory defect will be discovered on careful examination." I confess that I do not believe that a sudden severe attack of giddiness would occur from dyspepsia, if there were not some flaw elsewhere. Of course, common sense leads us to treat dyspepsia whenever we meet with it; all would agree in this. But we must be careful lest we treat for it when it does not exist; and if there be dyspepsia, we must not neglect to care for other conditions which may not depend on the dyspepsia, or only very indirectly depend on it. I do not deny that ordinary dyspepsia, nor the dyspepsia artificially induced by over-indulgence, may be a factor. I think that dyspepsia, or any other cause of lowering of general health, is a factor in producing or allowing paroxysms both of migraine and auditory vertigo. This was in principle admitted when we referred to Sydney Ringer's opinions. Gowers has put the question very clearly:—"In persons the subjects of ordinary vertigo, whose equilibrium nerves and centres are damaged, a primary gastric disturbance seems sometimes to excite a paroxysm of the special vertigo to which they are liable, and the gastric disturbance which thus brings on the attack is naturally regarded as its only antecedent." An admirable observer, Dr. Russell of Birmingham, has described the case of a woman who had symptoms of gastric ulcer and paroxysm of "definite" vertigo, and no sort of ear affection; but he says that "some proclivity in one of the vaso-motor centres, or in some other part of the nervous tract involved, must be presupposed."[6]

To return to our special topic. No one need diagnose ear vertigo when there is nothing aural to get hold of. On any view, we should note the presence of ear trouble, if there be any, whether it is accepted as causative or not. This we are bound to do. If anyone believes that a patient's attacks of headache are really owing to deranged digestion, he is bound to take heed of any retinal projections there may be in the paroxysms (vibrating air, fortification outline, &c.), and of the mode of their progression over the field of vision. He has to hold his hypothesis, not by ignoring these

[4] Brain, Part 6, July, 1879.

[5] Brit. Med. Jour., April 7th, 1877.

[6] Med. Times and Gazette, March 8th, 1879.

"definite" projections, but after fully considering them. Then, as Gowers points out, we have to note the kind of vertigo. To use again an expression of his, it is often "definite." Is it likely that when it is so particular that objects appear to be displaced to one side that stomach derangement is the cause of it? Is it not, on the contrary, more likely to be owing to some local lesion in the centres, even if not to disturbance of them by ear disease? And if there were no deafness, it would be rash to say there was no ear disease. I spoke also of retinal projections in some cases of migraine as being "definite." Is dyspepsia or any ailment affecting the nervous system generally likely to be the cause of a migraine with projections creeping over the field from one side towards the other? I entreat of you to inquire into the state of the ear in all cases of paroxysmal vertigo. I am ashamed to confess that I nearly made a very great diagnostic blunder recently by neglecting what I am now urging on you. Of course, you must not put down all paroxysmal affections, even starting with giddiness, as a matter of course to aural affection, even when there is such affection. Some attacks of epilepsy begin by noise in one ear;[7] in some cases of epilepsy and of epileptiform seizures there is organic ear disease, and probably a causative relation. These two kinds of cases differ *toto cælo* from one another, and each also from cases of Menière's disease.

I will now recapitulate and also adduce further evidence showing the relation betwixt ear disease and paroxysm, in which there is vertigo with vital symptoms, or in which there is ear disease with a slight and transient vertigo which is often definite. (1) There often is ear disease in the severest cases of vertigo. (2) Often the patient becomes deaf at his first seizure, and remains so afterwards. (3) When deaf of one ear (either before or after his first attack), suddenly turning the head in one direction may make him slightly giddy. (*a*) Thus one of my patients whose ear disease was right was a little giddy when he turned over to the left in bed. He had severe paroxysms also. (*b*) A medical man, whose ear disease is right, tells me in a letter, "The third attack was brought on by a sudden turn from right to left when lying in bed, when the giddiness and confusion lasted for eight or ten days. I have still difficulty in lying on the left side, and could still make myself giddy by turning quickly from right to left when lying. I can turn quite well any way when in the upright position. Auscultating with the right ear a patient lying in bed, the throwing the head to the right is apt to make me a little giddy, this does not occur when the head is thrown to the left." (*c*) Buzzard reports of a patient *subject to paroxysms of auditory* vertigo:[8]—"The patient, deaf of the left ear and with noise in it, kept his bed three or four months, unable to turn his head to the left." These facts are, I believe, to be trusted. I must say, however, that the statements of patients as to side of body turned to or side affected in paroxysms of any kind are not to be confidently relied upon. (4) Some patients deaf and subject to attacks may make themselves a little giddy by pressure on the ear. Schwabach reports a case of discharge from the left ear, in which pressure above and below the left auricle caused the eyes to oscillate horizontally to the left side, and slightly downwards—that is to say, the pressure produced a physical condition for vertigo; moreover, the patient felt giddy. I take the following from a paper by Maas:[9] "Of late E. Pfluger observed a case of formation of polypi on the posterior wall of the external auditory canal, close to the membrana tympani. When the polypi were touched with a probe, oscillatory movements in the horizontal direction ensued in both eyeballs." Flourens and other physiologists give oscillation of the eyeballs as one result of experimental injury of the semicircular canals. (5) Syringing the ear in some patients with aural disease produces an attack of auditory vertigo. Every medical man has seen patients thus treated ghastly pale, and reeling. In Schwabach's patient the oscillatory movements of the eyes were repeated in a lesser degree on syringing the ear. (6) Some foreign bodies in the ear produce great misery. I do not know, however, that they produce paroxysms like those of Menière's disease. You are aware that the pneumogastric nerve sends a branch to the membrana tympani—some say to enable us to hear the dinner-bell. The membrana tympani receives branches from the fifth also. Possibly irritation of the pneumogastric branch is in greatest measure to blame for such symptoms as occurred in the following case. The case is of some interest; possibly it is a very common one in aural practice. For the notes of it I am indebted to Mr. Lewis Mackenzie, formerly house-physician at the London Hospital:—

About 12.30 P.M. on Dec. 30th, 1872, John D——, aged twenty-two, a strong-built soldier, came into the receiving-room of this hospital in a state of great mental excitement. His face was much congested, the conjunctivæ were suffused, and for the moment it seemed as if he were the subject of a delirium from drink. He was complaining in an excited manner of a "buzzing" in the right ear, and of intense pain, the character of which he could not describe. He frequently repeated that "he would go mad if not relieved." His head rested with his right ear on the palm of his right hand, and it was noticed that he frequently walked round and round, and always from right to left. The house-surgeon had some difficulty in getting him to be quiet, and explain his sufferings. When asked how long he had had the pain, he said since he got out of bed in the morning; in fact he awoke in great pain, "The pain woke me, but has got worse and worse." Whilst I was deliberating as to the diagnosis, the patient said, "It feels like a large insect in my ear." This leading observation at once suggested an examination of the ear. Nothing was seen by ordinary examination, but with an ear speculum and reflected light from a mirror all the tissues appeared healthy, but on more close examination a small black dot was seen at the anterior wall of the tympanum and its junction with the mucous membrane of the external ear, and moving about as if trying to scratch its way betwixt the membrana tympani and the wall of the meatus. One syringeful of water brought out the offender, which proved to be a louse of rather large size, and dark. The patient was *at once relieved*, though his ear still felt "queer." He left the hospital in a state of intense gratitude.

(7) There are the well-known experiments of Flourens on the semicircular canals, narrated in every text-book of physiology. (8) There are the recent inestimable experiments of Cyon, carrying us a long way further than those of Flourens. (9) There are the researches of Mach and Crum Brown into the functions of the semicircular canals; these researches are of great value; by showing the particular importance of these canals in health they indirectly enforce the opinion that diseases of them may produce definite locomotor symptoms; they are also most valuable contributions to the physiology of the nervous system.

My chief subject is the paroxysm, but there are "chronic" cases. I speak of these to enforce that vertigo and reeling may have a causative relation with ear disease, that not only do "attacks" of vertigo go with it, but that more continuous vertigo does also; in some cases there are both attacks and frequent or continuous reeling. Of course, there is another difference betwixt the two than that of acuteness and chronicity, which, however, for our present empirical purpose, does not concern us. A few persons with ear disease nearly always, or for very long periods, walk unsteadily; they have to walk with attention, and sometimes with their legs too widely apart; they feel slightly giddy; they may walk as if slightly drunk. If the deaf patient comes to you walking well, and yet complains that he frequently is unsteady, you should get him to walk a short distance with closed eyes. All sorts of bad walkings are made worse by closing the eyes, although none so much worse as the gait in locomotor ataxy. I will mention only one case of this kind. I have recorded it in *Brain*, Part 5, vol. ii., April, 1879, partly from notes by Mr. Lewis Mackenzie. It looks to me like a production of chronic vertigo and reeling by experimental injury of one ear. A medical man, after firing a heavily-loaded gun, felt giddy and stunned, and walked badly. Since he has been partly deaf of the right ear, has had noise in it, and has tended to the left side in walking; when arm in arm with someone he would pull or push his companion to the left, according to the arm hooked to. His wife had often to remind him that he walked to the left. He is never without the noise in the right ear. This case is, so to speak, the production of "half a reel" by injury of one ear.

In the case last mentioned there were no paroxysms, but, as already said, there are cases with both severe paroxysms

[7] I have published two cases of this kind without autopsy in THE LANCET of March 11th, 1876, p. 386. Recently I have, as Gowers mentions in his second Gulstonian Lecture (THE LANCET, March 20th, 1880, p. 435), had an autopsy in a case of epilepsy, or epileptiform convulsions, in which noise in one ear was the "aura." Gowers examined the specimen for me, and found tumours in the opposite side of the brain.

[8] Clinical Society, THE LANCET, March 4th, 1876.

[9] Archives of Ophthalmology and Otology, vol. vii., p. 498.

and interparoxysmal slight symptoms. Some patients have strong paroxysms and frequent slight ones. A patient, under the care of my colleague, Dr. Buzzard, besides having strong paroxysms, has what he calls "staggerings" five or six times a day, or even in an hour. He has a feeling of sickness when they come on.

So far we have only empirical evidence of various kinds to show that there is a relation betwixt ear disease and certain nervous symptoms. That there should be is a necessary outcome of very old physiological researches on animals, and of the very recent ones of Cyon.

Lectures ON THE RELATIONS OF SARCOMA TO CARCINOMA.

Delivered at the Royal College of Surgeons in June, 1880,

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LECTURE II.—PART II.

SUBPERIOSTEAL TUMOURS OF BONE.

LET us pause for a moment to consider the characters which all these tumours of the femur bear in common. First, their deadly nature and rapid course. Eighteen are dead, and, of the remaining three, only of one is it recorded that he was still alive a year after amputation. But of the eighteen who died, five lost their lives from the direct effects of operation. The operation was practised so early in three of these cases that we are not surprised the autopsies showed no affection of the viscera. The nine post-mortem examinations of other cases revealed affection of the lungs in all. And of those on whom no section was permitted, more than one died with well-marked signs of pulmonary disease. Affection of the glands occurred so rarely that it is more difficult to explain why the glands were sarcomatous than why they were not. But as I think the explanation may more easily be given during or after the discussion of the tumours of other bones, I shall defer it until then. Affection of more than a single organ occurred only in the round-celled sarcomas. Recurrence of the primary disease was rare. Ossification, calcification, chondrification, were so common that they were present in almost half the cases, and with these changes softening down into cystoid spaces, sometimes with the formation of a locular structure, was often associated. Ulceration of the integuments was almost unknown; even those tumours which were permitted to pursue their course without interruption to death did not break through the skin. The duration of disease was in most cases from nine to twelve or fourteen months, but two died with affection of the viscera within four months, and one lived for three years. Of the age at which these tumours of the femur grew, I can only say that they were rare before the age of puberty, were still more rare after forty, and were most frequent from twelve to thirty years of age. In connexion with this point let me call attention to an arithmetical fallacy into which Prof. Gross has been betrayed, and into which, therefore, others may also be misled. In describing each form of sarcoma he has taken the mean of the ages of a number of patients, and has assumed that this mean represents the age at which the disease will be most frequently observed; but the mean of ages does not necessarily correspond with the age at which the disease most frequently occurs. If, for example, we take the mean of the ages of these patients with spindle-celled tumours, it is found to be 24·3; but there are only two patients whose age is within three years of this mean age, while all the others are either younger than twenty or older than thirty. Again, the mean age of those with mixed-celled tumours is 23·1. But five of the eight patients are under sixteen, or over thirty years of age. So little does the mean age of these cases represent the real age of occurrence.

Of size, or shape, or contour, little can be said. Large size, fusiform shape, smooth contour, were perhaps the properties most common. But of position there can be no question; the lower end of the bone, and next to this the diaphysis, had the preference. Last of all, the disease may be traced to blow or squeeze in some few instances; one of these I have already mentioned.

The tumours of the TIBIA include all three varieties, but the spindle-celled is represented by a single case. This patient and one other died without operation. In both the skin was ulcerated; in neither was there visceral disease. In no important respect do the three varieties differ among themselves, save in the prevalence of ossification or calcification in the mixed forms, but in some respects they differ widely from the tumours of the femur. Thus two of them occurred in patients over fifty years of age; in only one instance is there clear history of hurt; growth is often slower, the tumour not infrequently breaks through the skin and fungates, and the whole course of the disease is milder and less markedly malignant. Thus the round-celled tumour of No. 22 had already existed for many years before the thigh was amputated. Two years later a tumour appeared in the calf of his other leg, and grew rapidly. The symptoms of cachexy were already far advanced when this tumour was removed, and in three weeks death followed the operation, caused not by the operation, but by the continuance of the cachectic symptoms. No autopsy was made, therefore the supposition of lung disease, to which the symptoms distinctly pointed, could not be verified. It may be doubted whether these tumours were not separate outbreaks of tumour-disease, bearing no direct relation to each other, but each bearing a like relation to a disposition in the patient to the formation of such tumours. The second tumour was much softer and more juicy than the first. Another of the patients with round-celled growth was well sixteen months after amputation through the thigh. In this case and in two of those who suffered amputation for mixed-celled tumours (Nos. 27 and 28), the operation appears to have delayed or even arrested the course of the disease. One of these was a young mason, twenty years of age, whose tumour, as large as his head, grew from the upper portion of the tibia. It formed an aggregate of partly isolated, partly confluent lobes of what looked like pale golden spongy bone; around the lobes was softer brain-like substance. The microscope, however, showed a deposit of earthy salts, not true bone. The thigh was amputated when the tumour had existed seven months, and two years later the patient was alive and well. The other was a youth of eighteen years, whose leg was amputated by Mr. Croft seven months after the lower end of the tibia had been the seat of a large soft and pulsating tumour. It had the consistence of firm brain, possessed a ruddy hue, and exhibited a reticulated structure, of which the trabeculæ contained bone, the meshes, soft cell growth. Nearly a year after the operation the hip was amputated for a soft and spongy tumour of the femur, first noticed four months after the removal of the leg; and with this tumour was removed a group of glands whose size and colour left no doubt that they too were sarcomatous.

It should be observed that this is the only tumour of the tibia with which was associated glandular disease; and in this case I cannot but think it far more probable that the affection of the glands was due not to the tumour of the tibia, but to the tumour of the femur. The skin in this case and in another somewhat similar was broken. It may therefore be supposed the ulcer thus formed established a drain, through which the course of the disease was averted from more vital parts. Or, to express this in other terms, the pressure within the tumour was relieved by the breaking of its surface, and with the relief of pressure the tendency diminished to the projection of cells or fluids into the vascular and lymphatic channels. If it be really true that ulcerated sarcomas are less liable than others to dissemination, the very faculty of ulceration possessed by tumours of the tibia may be regarded as a sign of less malignancy.

That sarcoma of the tibia may affect more vital parts is proved by the autopsy of one case in which secondary growths filled the lungs, is indicated by the well-marked signs which were present in other cases. The seat of election of sarcoma of the tibia in two-thirds of these cases was the upper end or upper third, in which respect, again, the tibia differs widely from the femur.

Like the tibia, the FIBULA is most often affected at the upper end—indeed, of these two tumours, both occupied the upper third or upper end. The mixed-celled tumour differs from the other, first in its calcification, in which it

corresponds with the mixed-celled tumours of other bones, next and more important in the manner of its generalisation, for the secondary growths occurred, one in the other calf, many in the subcutaneous tissue, but none in the viscera. In other respects their histories are parallel—the age, the position of the tumour, the rapidity of growth, invasion of the surrounding muscles, absence of lymphatic affection, death within a year, in neither case due to amputation, but in each case in spite of amputation from the continued progress of the disease. No autopsy was obtained of No. 31, for he died at home in Wales a few days after his return there from the hospital, but the supposition is strongly in favour of affection of the lungs, the signs of which were present before and after amputation in a continued shortness of breath and frequent hacking cough, both of which increased in severity until he died.

Of tumours of the HUMERUS I have but five cases, four of which are round-celled, and one spindle-celled. But few as are the instances, certain of the features which they exhibit in common are so marked and singular that they may well be borne in mind. All five grew on the shaft of the humerus; all grew with a surprising rapidity; all grew along the shaft of the bone, yet through the periosteum, which therefore could not long have confined them, into the surrounding muscles. As an example, I cannot adduce a better than that of a child six years old (No. 36), who had been always well and strong until the beginning of the present year. There then appeared in the middle of his right arm a lump of small size lying deep down upon the bone, owning no cause, producing no pain, and giving rise to so little inconvenience that it was regarded by the parents as an ill of minor kind. But it spread with fearful speed, so that in less than five weeks it occupied the whole arm, from the elbow to just below the shoulder. The skin was red and hot, the forearm swollen and œdematous, the tumour so soft and elastic as almost to fluctuate. A section after amputation at the shoulder-joint displayed the whole diaphysis surrounded by a brain-like growth, through the midst of which the periosteum could be traced raised from the bone like the arch of a bow. The bone was softened so that it could easily be cut or broken. The tumour extended through the muscles almost to the subcutaneous tissue.

That these tumours are exceedingly malignant may be inferred from the rapidity and manner of their growth, yet none of them produced enlargement of the glands. Two recurred after amputation—a circumstance easily explained by their position, and by their extension into the surrounding muscles. Two died from the effects of the operation; but although there are three deaths only one autopsy is recorded. In this case the lungs were the only viscera affected.

The forearm presents us with a solitary case—a calcifying, mixed-celled tumour of the ULNA, growing from its upper third, but occupying the bend of the elbow and lower part of the arm. A series of five smaller tumours extended up the arm, in the substance of the biceps muscle, but the axilla was free from disease, and remained so till the patient's death. The tumour was noticed in February, 1869, and the limb was amputated in February, 1870; but within a month he was attacked with paraplegia, and the cough which had been noted at the time of operation became more urgent. Towards the end of March he died, but no autopsy could be obtained.

Of the CLAVICLE there are two cases, both round-celled, both in males, both in young subjects. Nor does the resemblance cease here, for the growth of both was rapid. In both the neighbouring glands appeared to be affected; in one certainly, for some of them were removed when the tumour, with the affected portion of the clavicle, was resected; in the other probably, yet not so surely, for in the recurrence which took place the irregular growth might well have been mistaken for glandular enlargement. In both the surrounding soft parts were involved in the disease; in both the tumour bore the same opaque-white colour and cancerous appearance. The cases are distinguished by the difference in the position of the tumours, the one being attached to the sternal, the other to the acromial, half of the bone; and in the rapidity of their growth, for to attain its size, in which it scarcely doubled the lesser, the tumour of the older patient had occupied six times as long. I am not able to give the date of death, and therefore the total duration in either case; for of one the termination is unknown, and of the other, although his death was ascertained, it took place in a remote region of Ireland, whence I could obtain no further information respecting him.

The three tumours of the LOWER JAW are all spindle-celled, all of female subjects, of the body of the jaw, of rapid growth. Unfortunately neither case is complete, No. 42 least of all, for its history is traced only up to and immediately beyond the operation. Of the first two each is known to have died with recurrence of the disease, although resection was practised in one of them, two, in the other three months, after the first appearance of the tumour. Recurrence took place almost from the time of the operation in the former, only after seven months in the latter, a difference for which we yet may find a reason in the muscle-invasion recorded in the first. No post-mortem examination was made in either case, but the glands appear to have been sound. It remains only to be said that of these three cases one was chondrifying.

The sarcoma of the RIBS is chiefly interesting for the rarity of primary sarcoma of the ribs. It deserves attention, too, for that it attacked two ribs close to their heads, destroyed much of their structure where it grew from them, possessed no capsule, infiltrated the surrounding muscles, was excised at the end of a year, and left the patient alive, free from recurrence, and with all the signs of health nine months after operation. We have seen from one of the cases of the lower jaw how widely different may be the course of a chondrifying spindle-celled sarcoma, even when, as in this instance, its bulk is mainly made of cartilage.

The rapidity of growth and quick recurrence of the one contrasts strangely with the slower growth and the effect of operation in the other. How can facts so much at variance as these be reconciled?

Yet, I think, perhaps some explanation may be found—first, of the different speed of growth in the different conditions of moisture and vascularity and power of resistance of the affected parts; next, of the difference as regards recurrence in the relative freedom with which removal can be effected of a tumour of the jaw, and of a tumour of the back.

I have already said that probably I should have collected a greater number of tumours of the PELVIS were it not for the difficulty in deciding their origin. This applies especially to tumours of the sacral region. Even these three cases, however, furnish some points in common which well may serve to illustrate not only their pathology but that of all subperiosteal tumours. They are all round-celled, all of males, all growing from the innominate bone, and of course all fatal. But in one important respect two of them differ from the third, and also from most of the tumours I have hitherto discussed, I mean in their infection of the lymphatic glands. In order rightly to appreciate the importance of this circumstance it must be studied in connexion with certain facts in which these tumours differ, and with some facts in which they both agree. Observe, on the one hand, that there was sixteen years difference in age between these two patients, and one of the tumours was a simple round-celled tumour with bands of fibrous tissue, the other a chondrifying sarcoma, therefore these things are not the cause or the prevention of glandular affection. On the other hand, both these tumours were of enormous size, were without capsule, grew into the surrounding muscles, filled a large part of the cavity of the pelvis, and were therefore brought directly in contact with, and probably grew into, the lymphatic glands. These characters of concordance and disparity would be of less moment were they not so strongly contrasted in the remaining tumour. The very points in which it agrees with one of them are those in which they differ from each other; the very points in which it differs from them both are those in which they most agree. Even the pulsation of the second and third and its absence in the first, and the short duration of the first and second compared with the slow course of the third, may be adduced as evidence in favour of the argument. Of No. 46 it must be stated that although the patient died from the effects of operation the lungs were already full of secondary growths.

The bones of the SKULL are subject to all three forms of sarcoma—to neither of the three forms apparently in marked pre-eminence. From whatever region of the skull they grow, whether from the vault or from the base, there is entire absence of glandular affection, unless that be considered glandular affection which, except that by it certain glands are affected, differs in no way from generalisation by the blood. I mean the affection of glands which lie far distant from the primary disease—not even in the line between it and the main lymphatic trunk.

As examples of such affection let me adduce two cases of

round-celled sarcoma (Nos. 48 and 49), which deserve on other grounds a more extended notice. They are both cases of what has been called chloroma or green cancer, a rare disease, said to have been described first by Balfour, now five-and-forty years ago. Even at the present time there exist so few recorded cases that they may be counted by units. Yet the disease bears characters that can scarce be overlooked. It commences in the bones of the skull or face, is of periosteal or subperiosteal origin, produces always or almost always multiple tumours of the skull, runs a most rapid course, producing growths of unconnected and unexpected parts, such as the bronchial and mesenteric glands, the kidneys, prostate, testes, breasts, and lungs, and kills in from three to six months. All the growths, wherever they occur, present a similar green colour and round-celled structure. Thus much at least is gleaned from the recorded cases, which have been well analysed by Huber, who, in 1878, was able to collect but seven of them.[1]

In some features, which distinguish them from tumours of almost every other bone, these chloromas differ not at all from most sarcomas of the skull. Multiplicity, for instance, is so common that most sarcomas of the vault present, not one, but many flattened tumours of the inner or the outer table, and this equally whether they are mixed-, or round-, or spindle-celled. They grow, too, as if simultaneously, from both aspects of the bone, so that it is rare to find a tumour of even moderate bulk upon the outer, which has not its counterpart, although perhaps not quite of equal size, upon the inner surface. Yet this occurrence is not, as I believe, due to simultaneous growth, but to penetration of the bone either from the inner or the outer side. The direction of growth of any tumour is determined mainly by two factors: first, the resistance offered by the surrounding parts; and next, their capacity for contagion by the tumour elements. The resistance offered by the tight-drawn pericranium on the convex aspect, and by the dura mater within—to which must be added the intra-cranial pressure—must in every case be great; neither of these membranes is easily infiltrated or destroyed by the disease. But the bone yields readily before the invading host of cells; its surface is eroded, its cancellous tissue filled with the new material. Its Haversian canals are widened and varicose, its cancellous spaces enlarged, and all these parts are filled with a similar tissue to that which formed the tumours. Probably, too, the infiltration of the substance of the long bones at the seat of sarcomas of superficial origin, which is rarely, if ever, absent, is only another example of the effect of similar forces.

Frequent as are tumours of the inner aspect of the bone, death from pressure on the brain is rare. While the greater part, at least, of tumours of the skull cause death within a year or little more, some of them are marked by a much slower growth and longer course. Of this the most characteristic example is a spindle-celled sarcoma of the forehead and head of a young man, nineteen years of age (No. 52), which had grown gradually until it attained a large size and helmet shape. It extended from the eyebrows to behind the parietal protuberances, and across the vault from one semicircular line to the other. Its contour was smooth, its consistence firm and elastic. After two years and a half the patient died, not from the growth or generalisation of the tumour, but four days after an unsuccessful attempt by Von Rothmund to remove it. It is hardly to be wondered that the attempt failed, for, on section, the mass penetrated the bone through a series of fine pores, and was even grown into the cavum cranii on either side the falx cerebri as a tumour, the size of a hen's egg. Yet the patient had betrayed no signs of derangement of the functions of the brain, if we except a slight occasional sensation of giddiness. In its minute structure the tumour consisted merely of closely-massed spindle-cells, varied by the presence in its deeper parts of stalactite processes growing into it from the surface of the bone.

No secondary deposits were discovered in the body. Only in the absence of myeloid cells does this tumour differ from that so admirably described by Sir James Paget in his lectures on Tumours.[2] The duration, position, manner of growth, even to the projection on either side the falx cerebri, are the same in both. And in that case, as in the one I have just recorded, there were no growths in any other part of the body. The long duration and slow malignancy of these cases is the more remarkable that they have no parallel in the spindle-celled tumours here collected of other bones, and are totally unlike the other spindle tumours of the skull. Nor can they justly be compared with these two mixed tumours of the skull, both of which existed an almost equal time, and neither of which appears to have been generalised. For the structure of these tumours differs so much from that of other mixed-celled tumours that I have been in doubt whether these are in truth sarcomata. Each of them was composed largely of fibrous tissue, mixed with cells of various shapes, sometimes collected in irregular spaces. The tumours of the base grew in each case from the body of the sphenoid bone, and differed only in one important respect from those of the vault, that neither of them was multiple.

[1] Archiv d. Heilkunde, 1878, xix., S. 129.
[2] Lectures on Surgical Pathology, 1853, vol. ii., p. 221.

CASE OF MALFORMATION OF THE HEART.

BY THOS. B. PEACOCK, M.D., F.R.C.P.

Great constriction or stenosis of the orifice of the pulmonary artery; aorta arising from both ventricles; defects in the fold of the foramen ovale; ductus arteriosus closed.—The child which was the subject of this malformation was first seen by me at St. Thomas's Hospital in the spring of 1876. It was then a year and seven months old, and the signs of malformation of the heart were very marked. The lips, hands, and feet were very livid, the ends of the fingers and toes were clubbed, and the nails incurvated. The cyanosis was probably present from birth, but it first attracted decided attention when the child was nine days old. It had gradually become more marked since that time. The head was disproportionately large, and there was some inequality between the two sides. The jugular veins were greatly distended, and there was a systolic murmur heard in the region of the heart. The scrotum and inguinal regions were very livid and in places excoriated. The temperature in the axilla was 98·6°, that of the ward being 57°. The child was stated to be very easily chilled, so that it required to be very carefully protected against the cold. Its digestion was also very difficult, and great attention was needed in feeding it, and when the food did not agree, the breathing became difficult, and there was violent beating at the heart, and increased lividity. On August 25th, 1876, the child was again seen by me at my own house. The eruption on the skin had subsided under the use of warm baths, but the cyanosis was very marked. There was a loud systolic murmur in the pulmonary artery, which was not heard in the course of the aorta, nor at the apex. The temperature in the axilla was 97·2°, in the hand 92·6°, that of the room being 65°. After this time I did not see the child again till the commencement of its last illness in August of the present year. In the interval it had passed favourably through measles and whooping-cough, and had had attacks of croup and of jaundice.

The last illness of the child commenced on August 8th with earache and restlessness, followed by loss of power in the right hand. In the afternoon of the 9th he had violent shaking of the right arm and hand, and the following morning of the right leg also, with twitching of the right side of the face, and the right arm and leg were powerless afterwards. On the evening of the 12th the temperature was 101°; on the 22nd he had a general convulsive fit, followed by partial stupor; on the 23rd he recovered consciousness and could speak, though he did not articulate distinctly; on the 24th he had a second attack of convulsions, after which he was entirely unconscious, and he gradually sank till he died, at 11 P.M. on the same day. He was six years and nine days old at the time of death. During the child's illness it was attended by Dr. Bateman and Dr. Glover of Islington.

The post-mortem examination took place at the child's residence on the 27th, and was made by Mr. King, the senior clinical assistant at the Victoria-park Hospital, in the presence of Dr. Glover and myself. There was much difficulty in obtaining permission to examine the body, and the examination was restricted to the heart. The organ was of large size for the age of the subject; it weighed four ounces and three-quarters avoirdupois. From the heat of the weather and the time which had elapsed since death, the organ was very flaccid. The aorta was

situated further to the right than usual, and the ascending portion was of large size. The pulmonary artery, on the contrary, was very small, and its coats thin, like those of a vein. The orifice was very small, admitting only of the passage of a cylinder measuring seven Paris lines (15·75 mm.) in circumference. There was only one valve at the orifice, and that was much thickened. The ventricles, but especially the right, were large, and their walls thick. The septum of the ventricles was deficient at the upper part, so that the aorta communicated with both cavities. The right auricle was very much dilated. The foramen ovale was closed, but there were several large openings in the fold. The ductus arteriosus was impervious.

The malformation of the heart in which the pulmonary artery is constricted and the septum of the ventricles defective, so that the aorta communicates with both ventricles, of which this case affords an instance, was first described by Sandifoot in 1777, and a considerable number of cases of the kind have since been placed on record in this country, France, Germany, and the United States. Indeed, as stated by Dr. Farre in 1814, it is the most common kind of deviation from the natural conformation of the heart. I have myself described four cases, and in 1866 I had no difficulty in collecting references to upwards of sixty published cases. When the child was first seen at St. Thomas's Hospital, from there being a loud murmur in the course of the pulmonary artery, it was thought most probable that it was a case of pulmonary stenosis, and as in cases where the pulmonary artery or its orifice is much constricted there is generally imperfection in the septum of the ventricles, it was supposed that the case was one of the combined form of defect. During the last illness, however, the murmur at the heart did not exist, and no precise diagnosis could therefore be formed, though it was thought most probable that it would prove to be a case of pulmonary stenosis with an aperture in the intraventricular septum.

The duration of life in cases of this description varies considerably, being mainly influenced by the degree of impediment to the circulation resulting from the cardiac defect.

In my own cases the patients survived to the ages of two years and five months, six years and a half, nine years, and nineteen years, death being in the last instance due to choleraic diarrhœa during the cholera epidemic in 1854. Of 45 published cases, 5 proved fatal under three years of age, 13 between three and seven, 12 between seven and twelve, 7 between twelve and eighteen; 2 lived to the age of twenty-one, 1 to twenty-two, 1 to twenty-three, 3 to twenty-five, and 1 to thirty-nine.

The death of the patients is, in the largest proportion of these cases, as in the present instance, caused by cerebral disease. Two of my previously published cases died in attacks of convulsions. It would have been interesting to have ascertained the precise seat and nature of the brain disease in the case, but permission was with difficulty obtained for the examination of the body, and examination of the heart only was allowed.

Though during life the temperature, as in such cases generally, was below the average, it will be seen that it rose during the child's last illness to 101.° In a cyanotic child, whose case is reported in the Pathological Transactions, the temperature rose during a fatal attack of measles to 104°.

Finsbury-circus, E.C.

HEMIANÆSTHESIA REMOVED BY STATIC ELECTRICITY.

By PROFESSOR B. BALL.

M——, aged nineteen, entered the Laennec Hospital, Paris, on January 25th, 1880. Family history: father died from the effects of an accident; mother living, nervous, and of strange and fanciful character. One brother died, in infancy, of convulsions, and another of a complaint unknown.

The patient herself has lived in Paris for the last five years. She has menstruated since the age of sixteen, but irregularly. Ten months since the catamenia disappeared after a prolonged exposure of the feet in cold water. A hoarse, barking cough supervened and has not yet ceased.

In March, 1879, her mistress amused herself by "magnetising" her, and this practice has been continued daily. Somnambulic sleep was easily induced. The patient says that she could put herself to sleep by joining her hands and exerting her will. The first hysterical attack took place on Jan. 10th, 1880, when she had two fits. On the 23rd, two more, which were violent and prolonged. The 24th, a slight attack. The menses had appeared on the 22nd.

Jan. 25th.—On admission the patient presents every appearance of health. She is well developed, strong and fresh-coloured. Her general condition is excellent. She was found to be completely anæsthetic on the right side, but of this she had previously been ignorant. Hearing, smelling, and taste are manifestly weakened on this side. Vision appears to be equally good on both sides, but no tests were applied as regards achromatopsia. There is slight ovarian hyperæsthesia on the right side.

28th.—Some choreic movements occurred on the right side.

29th.—Patient had an attack which lasted a quarter of an hour.

30th.—Patient nervous and excitable. Under the influence of slight pressure on the right ovarian region a violent attack took place, which lasted for ten minutes. She had no recollection of it afterwards. A mixture was ordered containing bromides of ammonium and sodium, three grammes of each daily.

From this date attacks occurred frequently; sometimes at a few days' interval, and there were occasionally several on the same day. During the attacks there is always laryngeal spasm, with hissing inspiration, and there is always headache afterwards, which sometimes persists until the next attack. At first the hysterical fit could be arrested by pressure on the right ovary, but after a time this became ineffective, and the inhalation of chloroform was substituted. This soon lost its action, and only suspended the attack, which would take place as soon as the inhalation was over.

From March 8th various modes of treatment were adopted, including "hydropathy," chloral, tartar emetic and morphia, and also continuous and faradaic currents. No improvement was observed in the patient's state with the exception of a few hours sleep at night. The hemianæsthesia and choreic movements still persisted, and as a natural consequence the limbs exhibited numerous bruises. It was then proposed to adopt static electricity as a method of treatment, the other modes of applying that agent having entirely failed. On July 30th the patient was placed upon an insulating stool with glass legs, and submitted for twenty minutes to the influence of the negative fluid of Nairn's static electrical machine. The experiment was abruptly brought to a close by the patient falling to the ground. When she rose the anæsthesia had completely disappeared. Sensibility was tested by the æsthesiometer and a variety of other means, and found to be perfect. There was no *transfert* in this case, the left side retaining its previous degree of sensibility. The sense of touch, however, was slightly more acute on the right (previously anæsthetic) side than on the left. Before the experiment the prick of a pin did not draw blood from the right arm; immediately after the prick of a pin drew blood. The plantar-reflex was the same on both sides, the choreic movements were lessened, and locomotion had become much easier.

The improvement thus acquired continued for a whole month, and on August 6th the catamenia reappeared. Up to the beginning of the present month (September) the girl remained in a satisfactory condition, but after that period she gradually began to lose ground, and has now relapsed into her former condition. It is proposed to commence the treatment by static electricity within a few days.

The noteworthy features of this case are: 1st, the sudden recovery of sensibility in consequence of a single application of static electricity, when everything else had failed; 2nd, the absence of *transfert*, both sides remaining in the normal condition; 3rd, the recurrence of the former symptoms after an interval of a whole month, during which the patient enjoyed perfect health.

It will be interesting to watch the further progress of the case, but as the facts now stand, they seem fully to justify the employment of static electricity in cases of hysteria, with or without hemianæsthesia.

Paris.

The foundation-stone of a new chapel for the Bristol Borough Lunatic Asylum was laid on the 24th ult., in the presence of the Mayor and Mayoress and the visitors of the asylum.

FIVE YEARS' SURGICAL WORK IN THE CARDIFF INFIRMARY.

BY ALFRED SHEEN, M.D.,
SURGEON TO THE INFIRMARY.

IN 1874 Mr. Edward Lund, one of the surgeons to the Manchester Royal Infirmary, published the results of five years' surgical work in that institution, based on a record of 1309 cases, to illustrate the utility of following out some "ready method of recording surgical cases in hospital practice," and as an inducement to other surgeons occupying similar positions in connexion with such charitable institutions, to undertake a similar task, "and thus by comparing different modes of treatment in those cases which form the routine of every-day surgery, to render our practice more correct and more certain in its results." As one of the two honorary surgeons attached to a small county infirmary making up a total of 58 beds, I have endeavoured to carry out the plan initiated by Mr. Lund, and, in doing so, I have availed myself of his admirable suggestions for a "ready method of recording cases in hospital practice." The following paper is the outcome.

During the period traversed by these notes (1875–79) I have had a total of 682 cases under my care—viz., 367 injuries and 316 diseases. My arrangement of these cases is somewhat different from that adopted by Mr. Lund. I have divided them first into two great classes—injuries and diseases; and in the latter, instead of referring the cases to the various parts of the body, I have, for the most part, placed them in classes which indicate the structure diseased. In addition, I have dealt separately with the various amputations and operations rendered necessary by the nature of the accident or disease for which they were performed. According to this arrangement the cases may be tabulated as follows:—

A. Injuries.		*B. Diseases.*	
1. Contusions	60	1. Bone	25
2. Sprains	19	2. Joints	51
3. Wounds	88	3. Bursæ and tendons	11
4. Burns and Scalds	20	4. Talipes	4
5. Dislocations	9	5. Ulcers	55
6. Fractures:		6. Abscesses	17
a. Simple	105	7. Tumours	9
b. Compound	66	8. Cancer	26
	367	9. Hernia	11
		10. Spinal disease	9
		11. Arteries	3
		12. Veins	1
		13. Eye	27
		14. Rectum	10
		15. Urinary organs	38
		16. Unclassified	19
			316

Total of injuries and diseases 683.

C. Amputations.		*D. Operations*	73
1. Accident	35		
2. Disease	11		
Total	46		

CONTUSIONS.

	Under ten.	Under twenty.	Under forty.	Under sixty.	Over sixty.	Totals.
Head	0	2	1	0	1	4
Face & neck	0	0	0	1	1	2
Chest & back	1	1	5	3	0	10
Abdomen	1	4	4	1	0	10
Pelvis	0	1	0	0	0	1
Hip	1	1	3	1	0	6
Thigh	0	3	4	2	1	10
Thigh & leg	1	3	3	3	1	11
Shoulder	1	2	2	0	0	5
Brain	0	1	0	0	0	1
	5	18	22	11	4	60

SPRAINS.

Knee	0	2	2	0	1	5
Ankle	2	5	4	2	1	14
	2	7	6	2	2	19

Of the total number of contusions and sprains, 71 were in males and 8 only in females. This is in some measure accounted for by the comparatively small number of women employed in arduous work. One case of contusion of the abdomen died. The patient was a man, aged twenty-eight, who had been squeezed between the buffers of two railway waggons. He was admitted at 11 A.M., almost immediately after the accident; no injury could be made out, there was not much shock, and his pulse was fairly full. At 6 P.M. normal urine was drawn off by catheter, and he complained of a feeling of distension in the abdomen; pulse 100. At 3 A.M. next day he became restless, and died in an hour. At the necropsy, twenty-four hours after death, the abdomen was distended. There was no external mark of injury beyond a slight abrasion midway between the trochanter and anterior superior spine on the right side. On cutting through the walls of the abdomen, slight extravasation of blood and other signs of contusion, limited to the hypogastric region, were noted. The abdominal cavity contained some pints of yellow fluid feculent matter. The intestines generally were much injected, and there was a limited effusion of lymph on several coils of the small bowel. A portion of the ileum, opposite its mesenteric attachment, had a transverse wound that admitted a finger easily. On removing the intestines, a large quantity of blood was found behind the peritoneum, which extended on each side up to and around each kidney and below into the pelvis. On making a careful dissection, there was found a laceration of the aorta, just at its division into the common iliacs and slightly posterior, which laceration would admit the top of an ordinary-sized pencil-case. There was no injury to the vertebræ.

Cases of contusion of the abdomen frequently turn out to be more serious than at first sight appeared; for this reason I always direct that such cases, however apparently trivial, shall be admitted, and kept quietly in bed till all chances of danger have disappeared.

One case of contusion of the thigh was followed by the effusion of a large quantity of blood. Such cases almost invariably do well if not interfered with; and in this instance, after the urgent symptoms had passed away, aided by pressure by means of strapping and bandages, nearly the whole of this blood was absorbed in about six weeks.

I have but little to say on the *treatment* of this class of cases. The main indications have usually been well fulfilled by rest in bed, the application of equable warmth by hot fomentations or cotton-wool, and, when the urgent symptoms have passed away, by gentle passive movement of parts where joints are implicated. My favourite treatment for contusions and sprains about the extremities is simply to wrap the parts well in cotton-wool for some days, with the patient at rest in bed; and I claim for this treatment, as compared with all others I have tried, a more complete absence of all uncomfortable symptoms.

Three of the shoulder cases were not recent, and were fair illustrations of the injury done by keeping parts too long at rest after contusion or sprain. In each case the joint was stiff and the deltoid wasted; but passive motion, aided by faradisation of the muscle, soon improved matters. Why such treatment had not been adopted previous to admission I am unable to say.

WOUNDS, BURNS, AND SCALDS.

	Under ten.	Under twenty.	Under forty.	Under sixty.	Over sixty.	Totals.
Eye	1	1	5	3	0	10
Scalp	2	5	12	1	0	20
Face	1	1	3	0	0	5
Tongue	0	1	0	0	0	1
Upper extremity	1	6	6	3	0	16
Lower extremity	3	7	7	2	2	21
Perineum	1	0	1	0	0	2
Arteries	1	1	1	0	0	3
Stabs	0	1	3	0	0	4
Cut-throat	0	0	2	1	2	5
Gunshot	0	0	1	0	0	1
	10	23	41	10	4	88
Burns	4	3	2	2	0	11
Scalds	6	1	1	1	0	9
	10	4	3	3	0	20

Of the total 108 cases in these two classes, 95 were males and 13 females. It will be noted that the wounds were most numerous at the ages when men are actively employed, and that the burns and scalds were mostly in young children. Instead of following the usual custom of classifying wounds as incised, contused, &c., I have grouped them chiefly according to their position. Almost all the wounds were lacerated and contused, and of so severe a character as to necessitate their admission. Many were treated in the first instance by *carbolic oil* (1 to 10) dressing, after being carefully cleansed, and, where necessary, parts brought into apposition by silver wire or carbolised catgut sutures. The carbolic-oil dressing is soon replaced by boracic ointment, or, where there is a healthy granulating wound, by the old hospital *lotio rubra*. In every case where it has appeared likely to answer, I have used *styptic colloid* as a primary and permanent dressing. It has been for many years a favourite and successful mode of treatment with me in wounds of all kinds. Some time ago Professor Gamgee, in an admirable paper, drew the attention of the profession to the advantages of the "dry dressing" of wounds,[1] and for years before that the treatment there advocated had been almost a routine treatment with me in the class of cases under consideration. Some surgeons advocate and practise the use of *poultices* as a dressing for wounds. I may say, in dealing with such cases, if there is one thing more than another that I have a horror of, it is a poultice. I fail to see what good it can do which cannot be done much better by other means, and, as a promoter of suppuration and a carrier of all sorts of possible abominations, it has no equal. Whilst saying this I am quite ready to admit that now and again we see cases where a poultice seems to meet the indications better than other applications, but I very seldom see such cases. *Irrigation* with warm carbolised water I have found to answer extremely well in suitable cases, such as sloughy wounds in the extremities, &c., and I have seen sloughy wounds of small extent progress most favourably under a daily dressing of boracic ointment, and the least possible disturbance. I think the value of rest, or rather an absence of continual meddling, is not sufficiently recognised in our ordinary every-day treatment of wounds.

Some few cases of severe laceration of the extremities were dressed *antiseptically*, with favourable results; and *skin-grafting* has in suitable cases aided very much the progress of cicatrisation and the subsequent firmness of the cicatrix. *Splints* have been found valuable in some instances to secure that rest which is so necessary to repair.

CASE.—H. W——, aged twenty-four. On Oct. 2nd, 1879, got his foot squeezed between the buffers of an engine and tender. No bones were broken, but the injury to the soft parts was such that there was considerable doubt about the possibility of saving the foot. It was dressed antiseptically, and again on the 3rd, 4th, and 6th, and boracic ointment was applied on the 10th. By the end of the month he was up, nearly well, and had no symptoms from beginning to end.

In the case of wound of the tongue, the accompanying hæmorrhage was apparently arrested by the application of a solution of perchloride of iron.

The eye cases mostly resulted in blindness from the nature of the accident. In one case, however, where the eyeball had been pierced by the point of a reaping-machine a little above the edge of the cornea, the patient was discharged in sixteen days, without damage to his sight.

Of the two cases of ruptured perineum, one had followed the use of the forceps in a tedious labour in a primipara: the parts had been brought together at once by sutures, but these had given way, and whilst the patient was in the infirmary the whole surface healed soundly by granulation, without any further interference. The other case was in a child, and was caused by a cart-wheel going over the perineum.

Of wounds of arteries, one was of the posterior tibial, near the calf of the leg. It had been under medical care for a week previous to admission, but there had been repeated bleedings. The wounded vessel was cut down upon, and I was fortunate in securing it and tying both ends. The case went on uninterruptedly to recovery.

In one case of stab in the abdomen the wound was deep, and the knife must have gone perilously near the iliac artery. It was dressed antiseptically. On the seventh and eighth days the temperature went up to 102°, being normal each morning. Five grains of quinine were ordered every four hours. Next day the temperature was normal, and remained so; but on inquiry it was ascertained that, by some mistake, no quinine had been given. This is an illustration of how very careful we ought to be in arriving at certain conclusions in dealing with the action of medicines. It is a difficult subject, and continually confronting one in every-day practice. A medicine is given with a certain definite object, and that object is attained, but the instances (apart from the fact of no medicine having been given, and that fact not ascertained) where it might be wrong to draw the conclusion that the effect was due to the medicine, must be sufficiently numerous in every thoughtful medical man's practice to be very perplexing to him in his endeavour to draw correct conclusions.

The cut-throat cases were all self-inflicted, and were all the result of drinking, except in one instance, where a man suffering from melancholia, having previously murdered his wife, afterwards cut his own throat. All these cases recovered.

Of burns, all those in children were caused by clothes catching fire. I give brief notes of the other three.

Geo. H——, aged twenty-four, was working at the bottom of a boat, when a boy above, whose duty it was to bring down red-hot rivets to him, threw one down instead; and it went inside his trousers and down his leg, producing several burns on its way. These were dressed with an ointment of carbolic acid, oxide of zinc, and resin cerate, as suggested by Mr. Lund; and he was discharged in ten days.

Samuel J——, aged forty-three, got drunk, and slept out all night with his leg in contact with some burning ashes.

Two of the children died, one on the third, the other on the fifth day.

Of scalds, one case was in a child aged three—a scald of the throat caused by drinking water from the spout of a kettle. Œdema of the glottis supervened, and there was increasing difficulty of the breathing, for which symptom he was admitted. He was treated by calomel, half a grain every half hour, for two hours; and then one grain every hour all night. (I cannot remember where I saw this treatment suggested.) Next morning his breathing was almost normal, and he was well in four days. All the cases, except two in adults, were caused by boiling water; the exceptions were from hot caustic solutions used at an adjoining paper-mill.

(To be continued.)

[1] THE LANCET, vol. ii., 1876, p. 866.

NOTES ON CHIAN TURPENTINE, AND ITS USE IN CANCER.

BY PROFESSOR JOHN CLAY,
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IN the correspondence which has been recently published in the medical journals the efficiency of Chian turpentine in the treatment of cancer has been altogether denied by certain writers. Some have suggested that unsuccessful results may be attributed to the impurity of the drug employed; others have ungenerously questioned the validity of the statements made in my paper, which appeared in THE LANCET for March 27th, 1880. It consequently seems advisable to offer some further general observations, by way of explanation and elucidation, on the subject.

It is a matter for regret that the supply of the genuine Chian turpentine has been so limited, as this has led to the substitution of factitious drugs, the use of which, as I have previously explained, unfavourably influences the results, besides entailing the further disadvantage of preventing a thorough testing of this method of treating cancer. I believe it is a fact that Chian turpentine, in mass, can scarcely be procured in this country at the present time, and therefore it is obvious that the treatment of the disease must be somewhat in abeyance until a supply of the pure drug arrives from abroad. I hope that the difficulty will soon be overcome, as I have been making special efforts to obtain the pure turpentine direct from Scio, and have had three excellent samples of the genuine drug sent to me through the post from that island; a supply may therefore be expected

shortly, when the purity of the drug at least will be definitely determined. The specimens referred to differ in some particulars from the Chian turpentine which I have previously described, and which had been in stock some years. There are also samples of larch turpentine in the market, which slightly resemble the recently gathered genuine drug. It may be of advantage therefore to the profession to describe each, and to note their differences.

Specimen No. 1 is of a pale, amber colour, and almost entirely free from impurities. It has the fragrant odour peculiar to Chian turpentine well-marked, which is readily perceptible after rubbing a small portion between the thumb and finger. It has a mild terebinthinate taste, which rapidly disappears. On placing a small portion of the drug on a piece of glass, and exposing it to the atmosphere, it considerably thickens after a few days' exposure.

Specimen No. 2. This, obtained last year, is the drug as collected. It contains a large quantity of foreign matter, such as pieces of bark, sand, &c., all of which give it a darker colour than the last-mentioned specimen. Two ounces of this crude product yielded, after straining, upwards of half an ounce of impurities. The strained portion contained still a quantity of minute particles of foreign substances. The taste and odour are the same as in the Specimen No. 1.

Specimen No. 3 resembles soft glazier's putty, but is somewhat whiter, and is of the same consistence. It is Chian turpentine that has been well washed in water, to free it from impurities. It has a mild taste of turpentine, and the peculiar odour is well-marked. If a portion is subjected to pressure between two pieces of glass, water can be readily forced out of the mass.

Three specimens have been submitted to me as genuine Chian which were purely larch turpentine. They may, as alleged, have been gathered in Cyprus. They have a strong odour of pine wood, and are of a browner appearance than the recent specimens just described. On tasting a portion, it appears tasteless for the first minute, after which a strong, bitter, nauseous flavour became manifest, eventually leaving a strong, sickening sensation at the back of the throat, which is slow to disappear. A portion placed on glass, and exposed to the atmosphere for four weeks, showed no signs of thickening, and readily adhered to the fingers.

The degree of solubility of the two kinds of turpentine, in ether and alcohol, is not materially different from that described in a former paper. The mild terebinthinate taste of the pure drug, its peculiar odour, with its power to solidify on exposure to the atmosphere, are characters sufficient to distinguish it from any other turpentine resin.

The results of the treatment of various forms of cancer, in the hands of certain medical practitioners, are alleged to be so different from those obtained by myself, that these gentlemen have thought fit to question the validity of my experiments. Certain results obtained by the use of a remedy, almost forgotten by the therapeutist, were placed by me unreservedly before the profession; and for the benefit of suffering humanity at least a fair trial of the remedy ought to be given before condemning it. In testing the efficacy of the drug, it is doubtless all-important that the true one should be used. It would appear to be not an easy matter to decide the question of purity, for upwards of three hundred specimens have been sent to me for examination by English and foreign medical men, most of them being guaranteed by the druggists supplying them, and it was a surprise to me to find so few examples of the genuine article amongst them. It will be as necessary now as before to use extreme vigilance in this respect in expectation of the new supply. In a large percentage of cases the factitious turpentine only has been used in the treatment of cancer. In one institution this was particularly so; and after the genuine drug had been tried for about three weeks the results of the two were combined, and a letter forthwith appeared in *The Times*, alleging that the remedy was useless. A similar instance occurred in an institution in this town, where the impure drug was first used, and then after a trial with the pure drug for about three weeks, letters appeared in a medical journal declaring that the remedy was of no benefit in the treatment of cancer. It is plain that sufficient time has not been allowed to elapse for the full effects of the remedy to be manifested, as in these instances of condemnation it has almost invariably been declared inoperative after a few weeks' trial only. Besides the unsatisfactory results which have accrued from the use of the impure drug, the full effects of the pure turpentine have not been gained in some instances from the drug not having been entirely digested. This has arisen occasionally from its incomplete preparation for administration. In compounding the mixture, freshly-prepared mucilage of tragacanth, B. P., has not been used, and then it rapidly decomposes; or sufficient of the mucilage has not been employed, which causes the resin to separate, and the doses of the medicine, therefore, have been irregular and insufficient. It has been shown in the *Pharmaceutical Journal* that acacia powder might be advantageously substituted for the tragacanth. It is necessary, therefore, to provide that a sufficient quantity of either gum shall be used in the preparation of the Chio turpentine mixture. Where the digestive powers are impaired, an addition of twenty minims of the compound tincture of cinchona to each dose has occasionally proved beneficial. The discontinuance of the sulphur has been advised, in order to make the mixture more elegant and miscible. I believe, however, that the mixture is more efficient, when it is well tolerated, if prepared with the sulphur.

In reference to the pills, if they are not properly prepared they are not always digested. If this is discovered on examining the evacuations, the use of the mixture in conjunction with the pills is indicated; that is, a dose of the mixture should be taken by the patient night and morning, and two pills in the middle of the day, in each case after food. It is advisable, when commencing the treatment, to give only half doses of the turpentine for the first week. Magnesia should not be used as an excipient in the preparation of the pills, but whether this exception ought to apply to the recently collected drug future experiment will have to decide. Pills prepared with magnesia are almost insoluble, and the same remark applies to some coated ones. The pills may be prepared sometimes with ether, to soften the turpentine, or it may be made soft by immersing the mortar in a hot-water bath, the sulphur being added to the mass in its softened state. The latter mode appears preferable, if only to facilitate the digestion of the pills, as if any difficulty is met with in this way they may be roughly powdered and taken in milk or some bland liquid, and then they are generally digested.

The statements made in my original paper as to the efficacy of Chian turpentine in cancer appear to me to be fully confirmed by the additional experience gained in the use of the remedy. In the cases previously reported the cancer has disappeared, and there are no signs of its return. This fact must be considered at least as a complete refutation of the statements, recently and boldly made, that Chian turpentine in the treatment of cancer is useless. The cases just referred to are unique of their kind, for, so far as I know, they are the only instances on record of cancer being cured solely by the administration of an internal remedy. I feel justified, therefore, in stating that uterine cancer at least may be removed by the use of Chian turpentine.

It is a fact which might be expected that most of the cases of cancer which have presented themselves are in an advanced stage of the disease; and more especially is this the case in cancers of the uterus. Yet the treatment continues to be very efficient. My experience does not stand alone in this respect, for several gentlemen have given independent testimony of the good effects produced by the turpentine treatment in cancer of various organs. In my original experiments the turpentine alone was used in order to thoroughly test its efficacy, but it now appears that the use of certain local and general measures undoubtedly promotes the convalescence of the patient. It is possible, therefore, to formulate a line of treatment which shall be successful in cancers of the uterus. Hence, given a case of cancer limited to that organ, and a steady use of the remedy for six or eight months, continued with certain general and local remedies if necessary, and a disappearance of the cancer may be reasonably expected. Eleven cases of uterine cancer under this treatment at the Queen's Hospital, besides a number of others in private practice, so far justify the preceding statements. Some very interesting facts have been observed during their treatment, which I hope to detail on a future occasion.

It is advisable not to be too precipitate in rejecting a case of uterine cancer on the ground of its being too far advanced for treatment. The following case, amongst others, is to the point. Mary B—— took her discharge from the Middlesex Hospital, London, about four months ago, and, according to report, was informed that her case was incurable, and that she had not long to live. She had heard of the turpentine treatment, and was very anxious to be under my care at the

Queen's Hospital, but I advised her not to undertake the journey, as I believed the case, from what I heard of it, was too far advanced for treatment. This advice, however, she disregarded, and became an in-patient at the Queen's Hospital. Here she was placed under the Chian turpentine treatment, and improved so much in nine weeks that she is about to return to London with every prospect of soon being cured.

In cancer of the uterus the conclusion expressed in a former paper, that the remedy destroys the cancer cells and causes the death of the growth, is strengthened by experience, and, as a consequence, there is cessation of pain and hæmorrhage in the first instance. But the turpentine at first does not destroy the bloodvessels of the part. As the dead tissue escapes, these become denuded, and give rise to hæmorrhage, especially at the menstrual period. In patients who have past the climacteric period this has not been observed. Ergot has been found of no benefit in arresting the hæmorrhage. Insufflation with three grains each of sulphate of zinc and powdered charcoal, once or twice a day, after syringing the vagina, has proved effectual, and appears to promote the obliteration and atrophy of the vessels. The same end may be attained by using a weak solution of perchloride of iron and glycerine. I have ordered some patients to syringe the vagina daily with equal parts of common vinegar and water, with good effect. When the anterior walls of the vagina are involved, either primarily or from extension, the case is not so suitable for treatment with the turpentine. A vesico-vaginal fistula is soon generally formed, but if this do not happen, cystitis supervenes, and the patient succumbs to the uræmic symptoms which are rapidly developed. Moreover, the turpentine is not well tolerated, but when a fistula forms, it is better borne, and uræmia does not arise.

Excision of the cervix uteri is not advisable, as the disease readily extends to the anterior wall of the vagina subsequently; and then the bladder complications, above described, arise with increased force. The use of the curette is not so objectionable if it is employed to remove only the sloughing mass after some weeks' use of the Chian turpentine, but it has not been deemed necessary to use the instrument, it being all important to preserve as much normal tissue as possible.

The mode in which Chian turpentine effects the removal of cancer was well illustrated in a case of epithelioma of the vulva. The patient, aged sixty, had been operated upon for cancer of the clitoris or vulva. The case was reported in THE LANCET at the time. The patient thoroughly recovered from the operation. About a year afterwards cancer reappeared in the lower part of the vulva and vagina. The growth was again excised, and she made a good recovery this time. About eight months afterwards a cancer appeared on the right labium, and when it was there seen for the first time it was the size of half-a-crown. It was determined to give the Chian turpentine, and the drug was given in full doses three times daily. At the end of the first week there was no alteration, excepting that the cancer was thought to be somewhat paler on its surface, and the surrounding swelling less. Second week: The growth was coated with a secretion of a greyish colour, which appeared to be firmly adherent. Fourth week: The growth was only half its former size. Its surface was somewhat convex; and was considerably thicker than previously, and was surrounded by a ring of a bright crimson colour. One of the resident surgeons of the hospital who saw it remarked that it looked like a small mushroom springing from the vulva. Sixth week: The growth was now diminished to the size of a fourpenny piece, and was still surrounded by the bright coloured ring, but was free from the secretion. The surface did not bleed on being touched. Eighth week: The coloured ring had disappeared. The growth was much smaller, and it had the appearance of a large "seedy" wart, such as is sometimes seen on the hands. Tenth week: The growth remained about the same. Twelfth week: The growth had all but disappeared, and the patient went into the country for a short time, but promised to report herself when she returned.

In private practice three cases of cancer of the rectum are under treatment, two of which are much improved; and one has not been seen again, but a favourable report is given after seven weeks' trial. Three cases of cancer of the stomach are under treatment; one has discharged herself, but the other two have remarkably improved, as regards freedom from pain and capacity of retaining nourishment, though continual sickness existed previously. So far as the treatment has extended, these cases seem to prove that the turpentine is equally, if not more, efficient in cancer of the stomach than of any other organ. In one case the glands of the neck were much enlarged; but these swellings entirely disappeared after the use of the remedy. Four cases of cancer of the tongue have been under observation. In one case the growth was as large as a cherry, and in four weeks it was reduced to a level with the mucous membrane, and it appears now to be cicatrising.

Several cases of cancer of the face have been very much benefited. In two cases of endothelial cancer of the abdomen and one of cancer of the liver, no benefit seemed to be derived, excepting that in one case there was some alleviation of pain, and an improvement of general health for a time.

In all forms of cancer, where the turpentine has been taken for six or eight weeks, I have found the administration of a tonic to be of advantage, as it promotes the convalescence of the patient, and if the disease affects the uterus or rectum it seems to facilitate the escape of the débris from the destroyed mass, and to promote cicatrisation. Four minims of the tincture of perchloride of iron, and three minims of liquor strychniæ, taken three times daily, are recommended; and if there be any pain, which often happens after six months' use of the remedy, six drops of tincture of belladonna are added. A generous diet is allowed. Morphia is not advised. The bowels should be kept daily moved, when necessary, by a mild aperient. After the turpentine has been regularly taken for three or four months, I now recommend it to be discontinued for three or four days in the fortnight. It is probable that future experience will show that, after it has been taken for the above-named period, it will be no longer necessary in the majority of cases, but as a precautionary measure it has been generally continued in the manner just described.

There are sixteen cases of cancer of the breast under treatment in the hospital, and a large number are under observation privately. The effects of the remedy in the first few weeks are, the relief of pain, and a diminution in the size of the breast, which is generally more movable, even when apparently fixed to the walls of the chest; this probably arises from a diminution of the surrounding cancerous infiltration. Time has not been sufficient, however, to speak with definiteness as to the ultimate results. The clinical facts brought out in this class of cases are very interesting and instructive. There is a great probability that the disease is arrested, as after four months' trial of the remedy the morbid growth has not increased in size. As far as can be stated at present, for therapeutical purposes the cases appear to be divisible into three classes:—1. The ordinary scirrhus of the breast, with or without surrounding infiltration. 2. Epithelial cancer. 3. Cases of ulceration after previous operation.

In the *first* class of cases great interest attaches to the experiment, as indicating how the solid mass is removed. It appears at present to deport itself as if it were a foreign body, and seems disposed to make its way rapidly to the surface; but in the cases where this has occurred the growth is not of an active character, for as the mass comes to the surface a crust forms upon it. This disappears in time, and another forms, while the whole bulk of the mass gradually diminishes in size. It may prove eventually that this is one mode of the removal of the disease. In these cases the growth does not increase in size, but, on the contrary, gradually diminishes.

In the *second* class—i.e., epithelial cancers—the surface of the growth becomes paler at first, then smoother, as if it had been levelled by friction; sometimes some of the nodules slough away. Then a process of cicatrisation takes place. There are two cases in which the new tissue around the growth is quite half an inch in breadth. Two others, about one and a half and two inches respectively in diameter, have entirely healed over.

In the *third* class of cases the results are so far favourable that the ulceration has not increased in size, but they have not progressed so favourably as the other cases. In several instances the glands of the axilla have been enlarged, but the enlargement has generally disappeared under a steady use of the turpentine.

The importance of these imperfect notes to the profession, and the influence they may have in aiding the treatment of cancer will, I hope, be a sufficient apology for reverting to the subject. At least I trust I have shown that the remedy is not useless. I may, in conclusion, state that in the treatment of these diseases patience and perseverance for a few

months are absolutely necessary. In some diseases which affect the human race, a continued treatment for twelve or eighteen months is often thought requisite. It has, I believe, been here shown that the remedy does produce some influence on the progress of cancer; and it is but reasonable to require that a similar indulgence be extended to the treatment of cancer by this method, as in the chronic diseases just referred to. As the remedy can be taken with impunity for a long period, and if time be granted for the trial of it, I feel that I am justified in stating that its steady use promises excellent future results.

ON INFANTILE RICKETS.

BY H. CRIPPS LAWRENCE, L.R.C.P. LOND.

RICKETS, the offspring of mal-nutrition in the fullest sense of the term, is so inseparably connected with many interesting physiological and pathological phenomena that it has attracted the attention of numerous observers, who in recording their experiences have obtained for the disease a literature of its own.

Essentially a disease of infancy, rickets may overstep the borderland on either side; for while Boerhaave[1] wrote, "Never congenital, rickets rarely occurs before the ninth month, scarcely ever after the second year," Dr. Gee, in commenting upon the aphorism, wrote,[2] "Never congenital! This is, I believe, not far from the truth; but the question of congenital rickets has never been fully investigated." On the other hand, Sir William Jenner[3] "saw, some years since, a girl aged nine years who was then only beginning to suffer."

Much has been written respecting rickets in general, and the phases of the affection in particular; but the outcome is not so satisfactory as it might be in reference to the requirements of daily professional practice.

I have placed the term "infantile rickets" at the head of this communication to impress the fact that rickets develops earlier in life than is generally recognised. Taking 2018 cases, including all diseases, observed at the North-West London Dispensary for Sick Children, I found 129 attributable to rickets. Of these the largest proportion first came under my observation between the first and third year. Similar results are recorded by Drs. Brueniche, Gee, Guérin, and Ritchie. In Von Rittershain's statistics[4] rickets occurred more frequently between the sixth month and second year. A distinction has to be drawn, however, between the frequency of the occurrence of rickets according to the ages at which the cases actually commenced, as compared with the ages at which such cases first come under observation. While ordinary statistics seem to show that rickets as a disease is more frequent between the first and third years, it must be remembered that cases of rickets appearing well developed when first seen represent several cases which have probably been developing for several weeks or months previously. Again, several cases of slight development of rickets are never examined at all, and the mal-nutrition upon which the rickets is dependent receiving its appropriate treatment, such cases pass by unrecorded. Among the 129 cases I observed, it appeared that 68 first came under notice between the first and third year; 39 were noticed between birth and the first year. I believe if my inquiry had been especially directed to the investigation of rickets at the time when the patients first came under observation, 129 would not represent numerically the total number of rachitic cases present in the 2018, which included all diseases. Any number of cases which, upon careful inquiry, might have had to be subtracted from the total of 2018, and added to the 129 cases of rickets, would have to yield a quota likely to increase largely the proportion of cases occurring in the earlier months of infancy. Some such hypothesis will serve to explain apparent discrepancies between the statistics recorded by different observers. Another reason serving to explain the frequency with which slight developments of rickets are overlooked is to be found in the fact that in practice we are apt to be on the look-out, not for the early manifestations of the disease, but for some fuller development, which mentally accords with the stereotyped descriptions of rickets. Upon this point Guérin, in his "Mémoire sur les Caractères Généraux du Rachitisme,"[5] gives this practical advice:—"It is necessary to avoid the notion that rachitism only commences with the osseous deformity. This manifestation of the disorder belongs to the second stage. Before it affects the osseous system rachitism expresses itself by more or less evident general phenomena, which are only absent in cases where the disease is but imperfectly developed."

I. With the primary stage, to which Guérin refers, are associated by English authors the three following symptoms—viz., (*a*) sweating about the head; (*b*) a tendency to lie uncovered when asleep; (*c*) general tenderness. It is the omission to note these indications of the first stage of rickets that leads to the overlooking, certainly for a time, it may be till too late, many cases of rickets. In general practice the attention of the practitioner is often drawn off from these essential primary phenomena by the occurrence of some intercurrent, accidental complication. Thus it comes to pass that a slight gastro-intestinal disorder, a bronchial or broncho-pneumonic attack, an imperfect attack of laryngismus, or a partial convulsion having occurred, the treatment is directed to the complication, whatever it may be, while frequently no evidence of rickets is sought for. Recovery takes place, and hence, the essential characteristics of rickets being either unnoticed, or, if noticed, soon forgotten, the disease meanwhile progesses, it may be slowly, but surely, to a fuller development. If the attention in practice were, as a general rule, more fully directed to all cases of mal-nutrition,—as an obvious result, cases of undeveloped rickets would be more often detected, and the further advance of the disease not only arrested, but a decrease in the actual amount of rickets also ensured. Another source of misconception arises from the erroneous idea that mal-nutrition is the heritage of poverty, instead of recognising and bearing in mind the fact that mal-nutrition means imperfect nutrition. Mal-nutrition exists largely, owing to their whims and fancies, among the upper and middle classes. From this cause a large number of cases of rickets develops unrecognised among the rich, and not only unrecognised, but unrecorded. As a consequence of imperfectly realising the presence of the prodromata of rickets, and overlooking the likelihood of mal-nutrition in the upper and middle classes, the proportion in which rickets affects infants under one year of age is manifestly underrated.

II. In the second stage of rickets various essential characteristics become evident, to three of which let me refer. (1) Among the osseous deformities, that of "beading" of the ribs; (2) among the rachitic neuroses, that of laryngismus; and (3) that of general tenderness, as a link between the first and second stages of the disease.

(1) The researches of Sir William Jenner[6] led him to propound the law that "rickets being a general disease, the bones are affected as one organ, just as the arterial system is in the degeneration of age; the consequence of this is, that no one bone is ever affected without all suffering, and that whether the disease manifest itself chiefly by enlargement of the ends of the bones, or by softening of the bones, or by both in a proportionate degree." Again, in reference to the lymphatic system, he adds: "The lymphatic glands are, in regard of albuminoid infiltration, to be regarded as one organ, just as I told you the bones in rickets are to be regarded as one organ. And as in the osseous system we never find one bone only affected with softening, and the other lesions characteristic of rickets, so in the lymphatic system we never find one gland only, or one set of glands only, the seat of albuminoid infiltration. The knowledge of the oneness, so to say, of the glandular system in reference to albuminoid disease, is of much practical importance, inasmuch as we can readily ascertain the state of the lymphatic glands in the groin, axillæ, and neck, while it is difficult to determine by the eye or touch during life the condition of the mesenteric and other internal glands." As the infiltration of the superficial glands thus affords a sure and certain index of a like implication existing in the deeper-seated glands, we have therein also a practical illus-

[1] Aphorisms, 1841. [2] St. Bart. Hos. Reports, vol. iv., p. 70.
[3] Medical Times and Gazette. Lecture III. on Rickets, April 28th, 1860, p. 415. [4] Ziemssen's Encyclopædia.
[5] Guérin, Difformités du Système Osseux. Paris, 1840.
[6] Med. Times and Gazette, April 7th, 1860.

tration of how rickets as a constitutional disease exerts its influence in reference to location and place.

Now, in the manner in which rickets attacks the osseous system we have, I believe, a valuable practical indication in point of time. I here refer to "beading of the ribs." In the paper already referred to by Dr. Gee[7] on Rickets, it is stated: "Unquestionable 'beading' of the ribs may occasionally be found in infants of only three or four weeks old. Moreover, I believe that no characteristic alteration in the bones (an essential element in the diagnosis of rickets) can be discovered more early than 'beading' of the ribs." My own, comparatively limited, clinical experience has led me independently to a like conclusion. There are two reasons why "beading" of the ribs is frequently overlooked. To one I referred in a paper on Rickets recently read before the Harveian Society of London in these terms:—"One reason why this essential characteristic is overlooked is that the ribs are out of sight, and as it involves trouble to investigate their condition, not of necessity, but owing to the ribs being out of sight, it often happens that 'beading' of the ribs is not looked for until either notice has been taken of the sweating about the head, restlessness, laryngismus, or enlargement of the wrists and ankles, and then 'beading' of the ribs, being sought for and found, is regarded as a crucial test, confirmatory rather of the other symptoms than as premonitory of their occurrence. Secondly, the frequency with which rickety children present a fat, plump appearance disguises the presence of the enlarged ends of the ribs. If this order were more universally reversed in the diagnosis of rickets, and the child stripped at the first visit for examination, I believe 'beading' of the ribs would be found more often than not to precede the other essential characteristics." Possibly exceptions may arise in which the value of "beading" of the ribs as the earliest symptom of osseous implication in rickets may become questionable; for instance, if ossification were advancing earlier or more rapidly in other directions. I have already mentioned Dr. Gee's observations respecting "beading" of the ribs; if we supplement those remarks by reference to the law propounded by Sir William Jenner relative to the osseous lesions in rickets, "beading" of the ribs at once becomes an early symptom of great practical value in point of time—the analogue as regards the osseous system to that which implication of the superficial glands has been shown to occupy in reference to the other lymphatic glands in rickets in regard to time. In addition to this, "beading" of the ribs is a precursor of primary importance in reference to the osseous lesions in rickets, indicating not only that the second stage of the disorder is impending, but that it has already commenced; and that the treatment appropriate to rickets should be at once instituted to prevent its further development.

(2) The neuroses in rickets are often as misleading in practice as are the early manifestations of the osseous lesions. The explanation of this may be readily accounted for. It arises partly from the age at which rickets attacks the system being an early one. At this age, as we all know, the nervous system is undergoing a rapid development, which reacts upon the economy in a twofold direction. Slight causes suffice to produce phenomena which find their expression through the nervous system, and this whether due to a central or peripheral irritation. Hence the error to which this leads in practice, is a misconception of the significance of one or more symptoms, as indicative of some independent disorder, instead of regarding the symptom or symptoms as being "the consequence of the constitutional disease."

In reference to the convulsions of infancy, it may be stated, on the one hand, in the case of an exanthem, or a thoracic or abdominal inflammation, if an infant or child be attacked thus, the premonitory symptom would probably be a convulsion of less or greater intensity; while in the adult one would expect to be forewarned rather by a rigor. On the other, as Trousseau has shown, convulsions may be induced by some external irritant, such as a pin in the garments of the child transfixing the liver or anterior fontanelle, which being removed the convulsions ceased. Now in rickets the various neuroses acquire a relative value and importance, owing to the method and manner in which they occur in the infant or child.

Of late years much attention has been directed to the etiology of neuroses, and confining our attention to those concerned with rickets it may be said that laryngismus is one of the most frequent and prominent of the rachitic neuroses.

Sir William Jenner, in enumerating the causes of death in rickets, places the neuroses in the following order: laryngismus; chronic hydrocephalus; convulsions; mentioning especially the frequency of laryngismus in its connexion with the disease. It may be said also of laryngismus, that it is one of the earliest neuroses affecting infancy, and, it may be added, especially the rachitic infant. Upon this point, in a paper "On Convulsions in Children,"[8] Dr. Gee writes: "Now spontaneous laryngismus is always associated with rickets. For this great middle proposition we are indebted to Elsässer. Forty-eight out of the fifty cases of laryngismus spoken of above were undoubtedly rickety." Of the fifty cases it is also noted that nineteen had eclamptic fits.

Mal-nutrition being so intimate an etiological factor in the production of rickets goes far to explain the frequency with which laryngismus is associated with the disorder. As a concomitant of mal-nutrition, digestive incapacity plays an important rôle in its production. The relationship existing between the larynx and the pneumogastric nerve, by means of its recurrent laryngeal branch, indicates how readily an irritation communicated through the intestinal tract would be transferred to the larynx, exciting its muscles to spasmodic contraction.

To Jacobi and Elsässer is attributed the theory that cranio-tabes (which Elsässer maintains precedes in point of time "beading" of the ribs) itself, arising from undue pressure upon the cranial bones by the brain-substance from within, and from without when the head rests upon the pillow, is intimately associated through the self-same pressure with the production of laryngismus. But Vogel, while admitting the connexion between cranio-tabes and laryngeal spasm as an "irrefutable" fact, requires "further physiological and anatomo-pathological investigations for the conclusive proof as to cause and effect." Be this as it may, many cases of rachitic laryngismus remain to be otherwise explained. Laryngismus thus acquires a position of primary importance among the rachitic neuroses, whether we refer to its frequency or its early prominence. These characteristics increase its value as a symptom in reference to the early diagnosis of rickets.

(3) General tenderness is a third symptom of value in reference to the early diagnosis of infantile rickets. Whether this tenderness be periosteal in nature, as Trousseau maintained; or the result of emaciation and cachexia, as Ritter believed; or "distinctly muscular," as Sir W. Jenner and Dr. Gee have taught,—each and all of these authors associate general tenderness with rickets as a proximate cause. Vogel claims that "the first symptom of rachitis of the ribs, is a marked pain on touching or pressure of the thoracic walls," the production of which can be obviated if the infant be "tenderly raised with one hand under the pelvis, and the other supporting the neck." This observation materially enhances its value as a symptom with reference to the early diagnosis of the affection.

The proposition of Elsässer, that cranio-tabes is the earliest evidence of osseous implication in rickets, may be regarded as still *sub judice*. If we believe, however, with Dr. Gee that "beading" of the ribs is the first and most reliable, demonstrable evidence of an osseous lesion in rickets, and with Vogel that general tenderness is "the first symptom of rachitis of the ribs," then this general tenderness at once acquires the position of being an important link between the symptoms of the first and second stages of rickets.

In conclusion I would remark: 1. That rickets as a disease is frequently developed earlier in life than is generally recognised. 2. That the symptoms of the first stage, though frequently recognised, such as sweating about the head and a tendency to lie uncovered, are soon forgotten, and the rickets, the occurrence of which they predicate, meanwhile develops. 3. That between this primary stage and the second stage of well-marked osseous deformity there are intervening symptoms, to which in practice sufficient value is frequently not attached. 4. That in general tenderness we have a symptom of great value, indicating the onset of the second stage of rickets, being its earliest manifestation. 5. That in "beading" of the ribs we have a more marked, demonstrable evidence that the second stage of rickets has commenced. 6. That in laryngismus as a neurosis we have

[7] Vol. iv. of the St. Bartholomew's Hospital Reports.

[8] St. Bartholomew's Hospital Reports, vol. iii., p. 103.

probably one of the earliest evidences that rickets has invaded the nervous system.

If the above symptoms be overlooked or ignored, our next acquaintance with the disease will probably be in a fully developed, it may be an irremediable, form.

Oxford-terrace, Hyde-park.

EXTRACTION OF A REVOLVER BULLET FROM THE SKULL.

BY SAMPSON GAMGEE, F.R.C.S.,
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

A FEW minutes before 1 A.M. on Wednesday, the 22nd ult., I received an urgent note from my house-surgeon, Mr. Westwood Moore, reporting that a gentleman had just been admitted into the Queen's Hospital after firing a revolver bullet into his right ear. I proceeded to the institution at once, and found the patient in bed. He was sensible, with a fair pulse. A little blood was oozing from the right meatus, and the ear was most sensitive to touch, but not wounded; only slightly bruised at one point. On the left side of the neck, reaching below the larynx, and upwards on to the cheek, was a large, hot, brawny swelling, which, the patient informed me, had been in process of formation for about ten days. Everything had been done most judiciously and promptly for the patient's comfort by the hospital staff. Restoratives, ice, &c., were continued; and I resolved not to interfere, beyond removing a strong metal plate with artificial teeth from the upper jaw.

The patient continued for the next two days in much the same state, as denoted by the subjoined extracts from the temperature chart. For brevity, I only quote the maximum numbers:—23rd, temperature 99·4°, pulse 96, respiration 16; 24th, temperature 99·4°, pulse 104, respiration 22; 25th, temperature 99·3°, pulse 96, respiration 24.

The swelling on the left side of the neck increased greatly, and on the 25th, I could feel indistinct fluctuation in its centre. Through an incision I gave exit to about one ounce and a half of very fetid pus.

Next morning (Sunday, 26th ult.) the swelling just referred to had so much diminished, and the patient was generally in such a favourable condition, that I determined on exploring the right ear; while Mr. Brett, our resident obstetric surgeon, administered ether. There had been a slight but continuous oozing of bloody serosity from the earhole.

With a narrow scalpel I made an incision in the roof and floor of the meatus, so as to admit the tip of my little finger, a metallic probe having previously detected a rough, hard substance within the passage. The inner ear was evidently blocked; but whether by bone or bullet, or both, I could not tell until I introduced a Nélaton porcelain probe. This soon solved the problem. On withdrawing it I found a shiny black mark on the white bulb; only lead could produce that. The diagnosis cleared, arose the question what to do, for the obstructing body seemed immovably rammed into the temporal bone.

I allowed the patient to wake, to have a little nourishment, while messengers were sent to all the members of our honorary staff urgently requesting them to favour me with their opinion in consultation. Their response was most cordial, their counsel and practical assistance most valuable. My friend, Mr. W. G. Archer, of the general hospital staff, was also good enough to attend and assist me, as was Mr. T. P. Salt, our surgical mechanician.

The propriety of attempting the extraction of the bullet having been unanimously agreed upon, rose the question of means. Mr. Brett again placed the patient in a beautiful sleep under ether. Bullet forceps proved of no use. I made all the room I prudently could with the knife, but there was no space for ordinary bullet extractors. By working with the left hand a steel elevator, as a lever against my right index-finger as a fulcrum, I succeeded in extracting the bullet. It weighs 126 grains, and one of the bullets left in the revolver weighs precisely the same. The patient quickly regained perfect consciousness, and took liquid nourishment. Next morning the temperature had risen to nearly 103°; pulse 144; respiration 24. The state in the evening was: temperature 101°; pulse 136; respiration 24. Perfect rest enjoined; ice internally and to the head, and attention to the bowels by enemata. Some refreshing sleeps were enjoyed. There was no sickness and no paralysis for the first thirty-six hours after the operation; but then coma rapidly supervened; the pupils became fixed; the body motionless. At 10.30, 28th ult., temperature 103·6°; pulse 168; respiration 17. Death occurred twenty minutes later, forty-two hours after the operation.

The post-mortem examination was conducted by Dr. James Oliver, with the assistance of Mr. R. Fitch. There was a considerable amount of sero-purulent effusion in the cavity of the arachnoid, and its vessels were injected. A thin, purulent deposit covered the surface of the brain, especially of the right hemisphere. Much punctiform redness interspersed the cerebral substance. On removing the dura mater a ragged fissure was visible through the roof of the right temporal bone. On laying open the interior of the petrous portion it proved to be tunnelled with an irregular dirty cavity with broken walls, demonstrably the place of lodgment of the bullet.

In the next issue of this journal I hope to offer some comments on the case, with illustrations of the bullet as moulded into the inner ear, and also of the lead mark on the porcelain probe.

(To be concluded.)

TREATMENT OF CHOLERAIC DIARRHŒA BY THE HYPODERMIC INJECTION OF MORPHIA.

BY W. HARDMAN, M.B. EDIN., C.M.

IN THE LANCET for Sept. 27th, 1879, appeared a communication from me on the subject of the treatment of choleraic diarrhœa by the hypodermic injection of morphia. I will recapitulate the conclusions I there ventured to draw from an extensive experience of over three years' routine use of this method:—

1. Choleraic diarrhœa can be always immediately stopped by the administration of morphia hypodermically.

2. If severe diarrhœa have pursisted over two hours in spite of the administration of morphia or opium by the mouth frequently, the hypodermic injection of morphia should be at once resorted to.

3. If cramps and collapse be present, the purging persisting, no time should be lost in administering morphia subcutaneously in full dose.

4. The treatment is absolutely free from danger, even if temporary suppression of urine or albuminuria be present.

5. Where not curative the treatment is diagnostic, enabling us to foretell with certainty the advent of dysenteric symptoms.

6. The best preparation of morphia for this and other hypodermic purposes is the sulphate, on account of its smaller liability to undergo change into apomorphia. For a knowledge of this last fact I am indebted to my friend, Mr. H. O. Thomas of Liverpool. Obstinate vomiting may persist for twelve to forty-eight hours after the purging is stopped, but need occasion no anxiety. It is the purging that kills.

I am anxious for the beneficial and gratifying results of this treatment to be as widely known as possible; and with this object in view I give a few illustrative cases.

CASE 1.—Mrs. S——, aged fifty-six, has been purged violently all day. Watery stools; now nearly unconscious and voiceless. Purging continues. A third of a grain of sulphate of morphia was administered hypodermically at once. This was on July 23rd. She was never purged again, and was convalescent on the 25th.

CASE 2.—On August 6th was called to a delicate woman, a Mrs. T——, aged about fifty. She had purged all night violently; and up to my seeing her, which would be about 9 A.M., I found her passing colourless, watery stools, sometimes involuntarily, and vomiting almost constantly. She was pale, sunk, cold, with blue lips and finger-nails, fear-

ully cramped, hoarse weak voice, and quick, small, irregular pulse. The people of the house thought her dying. Administered one-third of a grain of sulphate of morphia hypodermically, at once.—Aug. 7th: Never purged again.—Aug. 8th: Convalescent.

CASE 3.—Miss M——, choleraic diarrhœa for twenty-four hours. Cramped; motions like rice-water. Gave a third of a grain of sulphate of morphia at once. Next day convalescent. Never purged again after injection.

CASE 4.—July 19th: Mr. F——, choleraic diarrhœa for twenty-four hours. Gave half a grain of sulphate of morphia at once.—July 20th: Not another stool. Convalescent.

CASE 5.—Was called up on July 26th to a Miss H—— about 4 A.M. Was sent word she was dying. I found her unconscious on the floor in a faint, having been purged violently involuntarily. The motions were like rice-water. I ascertained that the purging had been going on since 8 P.M., and that between that time and 4 A.M. she had been moved copiously more than twenty times; she had also terrible vomiting. Gave half a grain of sulphate of morphia hypodermically at once.—11 A.M.: Not purged again; rallying.—July 27th: Convalescent, but weak; never purged again since the injection.

CASE 6.—Miss N—— was attacked on August 7th with severe choleraic diarrhœa. Gave one-third of a grain of sulphate of morphia at once. — 8th: Convalescent. Never purged again.

CASE 7.—Was called up about 6 A.M. on Aug. 11th to a Mrs. D——, aged sixty. They sent word she was dying. Found she had suffered from diarrhœa for some days, which had become choleraic during the last twelve hours, having had from twenty to thirty motions during the night, which were pale, colourless, and odourless; vomiting incessant; cold sweats; pinched features; voiceless; blue lips; cold extremities; and very thready, weak, irregular pulse; fearful cramps all over; semi-conscious; passing stools involuntarily; countenance changed. Gave half a grain of sulphate of morphia at once. 11 A.M.: Never purged again; rallying; vomiting continues.—Aug. 12th: No more purging; vomiting better.—Aug. 13th: Convalescent and up. This was a very bad case.

CASE 8.—Was called on Aug. 12th to a Mr. S——, who had been vomiting and purging all day and night. I saw him in the evening, receiving a message that he could not last long. Found him hoarse, pinched, and cramped. Gave one-third of a grain of sulphate of morphia at once. Aug. 13th: Never purged again. Up.

CASE 9.—Was called about three weeks ago to a Mr. D——, who had been violently purged about twenty-four hours, with violent cutting pains in belly; had also vomited. Gave half a grain of sulphate of morphia at once. Motions loose and watery-yellowish. Saw him again same evening. Purging, after being better some hours, had returned as bad as ever. Gave opinion that case would develop into dysenteric diarrhœa. Next morning motion still watery, but on slanting the vessel, the characteristic bloody slime was seen adhering to the bottom. He was gradually cured by the administration of ipecacuanha and opium.

Whatever the evacuation, cutting pains in the belly usually denote that the diarrhœa is of a dysenteric nature, and will not yield to morphia alone. Cramps occur only in choleraic diarrhœa, the purging of which is usually, but not always, painless in the commencement.

CASE 10.—On August 10th, 1879, was called to a Mrs. W——, who had been seized with violent vomiting and purging in the night. Temperature 104·4°. Gave a mixture containing chalk and opium after every liquid stool. 8 P.M.: Worse. Motions assuming the rice-water character. Temperature 101°. Motions come from her without her knowledge if she moves. One teaspoonful of the medicine every quarter of an hour until the purging stopped. 10.30 P.M.: Worse than ever. Gave half a grain of sulphate of morphia at once.—Aug. 11th, 10 A.M.: Better. Laughing and cheerful. Says in about a quarter of an hour she felt the injection produce a most wonderful effect. A pleasant, warm feeling spread all over her, and then the purging ceased. Was not purged again, and not the least sleepy.—12th: Convalescent.

CASE 11.—Was called to an old lady, aged sixty-seven, on August 21st, 1879, who had been weakly and failing some time, and who had been purging violently all night. Motions watery, with yellowish flocculi. Gave mixture of opium with chalk after every liquid stool, but after a few hours' trial the purging was as bad as ever. Gave a quarter of a grain of sulphate of morphia hypodermically.—9 P.M.: Purging, which stopped after the hypodermic injection, has returned again, and she has been purged five times. Mixture of opium with chalk, one drachm every quarter of an hour until purging stopped.—Aug. 22nd: Still purged and vomiting severely. Motions yellowish, watery, with yellowish bilious flakes floating in the fluid. 9 P.M.: Motions assuming the greenish slimy dysenteric character. Patient was now treated for dysentery, and in a few days made a good recovery.

CASE 12 is with difficulty distinguished from genuine Asiatic cholera. Miss F——, a delicate elderly spinster, was seized on Sept. 16th, 1879, about 11 P.M., with violent vomiting. This continued until 12 P.M., when violent purging was superadded; these continued with violence until 1.30 A.M., when I was called up to her. I gave a mixture of opium with chalk after each liquid stool. 2.30 A.M.: Was called up again, as they thought her dying. I found her nearly unconscious, cramped all over body and legs, vomiting violently every minute or two, purging every few minutes, the purging being involuntary and under her. She was showing the whites of the eyes, and the countenance was changed. She was certainly all but gone. Gave at once two-fifths of a grain of sulphate of morphia hypodermically. She did not feel the prick of the needle in the least. 10.30 A.M.: Never purged since injection, but vomiting tiresome. 8 P.M.: Vomiting a little better.—Sept. 18th: Convalescent.

CASE 13.—On August 12th I was called to a Mr. M——. He began purging on the 10th, and got worse and worse until I saw him on the evening of the 12th, when he stated that he had been purged more than thirty times in the preceding twenty-four hours. Motions watery and yellowish. I gave him a mixture containing compound ipecacuanha powder, to be taken every hour until the purging stopped.—13th: Purged all night; very weak; voice going. Gave at once half a grain of sulphate of morphia hypodermically.—14th: Never purged again since injection. Convalescent.

These thirteen cases, which are taken, almost at random, from a considerable number of which I possess notes, illustrate my propositions. Cases 1 to 8 are ordinary cases of choleraic diarrhœa, where hypodermic injection of morphia was resorted to at once, and constituted the sole treatment. One dose usually is sufficient, and convalescence is rapid. Cases 9 and 11 illustrate the proposition that if the purging return it will ultimately prove dysenteric. Cases 10, 12, and 13 show the rapid and complete results of the hypodermic administration of morphia after the equally complete failure of opium by the mouth. I can hardly conceive it possible that this plan of treatment will not prove equally successful in Asiatic cholera, for the more purely choleraic the cases the more perfect and rapid the result. There is a form of diarrhœa attended by vomiting of bile and the passage of yellow, powdery, liquid stools. This form of diarrhœa seems due to an excessive formation of bile by the liver, and will not be cured by the administration of morphia hypodermically. As regards genuine choleraic diarrhœa, I can only repeat what I wrote in THE LANCET last year, that "in the whole range of medicine there is no one deed so gratifying to both patient and practitioner as the administration of a hypodermic injection of morphia in choleraic diarrhœa."

Blackpool.

A HARELIP TROCAR AND TUBE.

Contrived by

SURGEON-MAJOR E. AMBROSE FITZGERALD,
BENGAL MEDICAL SERVICE.

THIS little instrument, to which I wish to draw attention, is devised on the trocar and cannula principle. The piercing portion of the trocar is thin and round, with the point strong, sharp, and somewhat spear-shaped, and made of the best steel. The tube, about two inches long, is made of coin silver, sufficiently stout as not to bend on ordinary pressure or straining, and admits of slight expansion and contraction in its entire length, so as to fit on accurately to the trocar. When a harelip operation is to be performed, the edges of the fissure having been pared, the trocar, armed with a silver tube

is thrust through a quarter of an inch from the raw edges of the fissure, close under the mucous lining of the lip. This being done, the trocar is withdrawn and the tube allowed to remain. Two tubes are sufficient for most cases of harelip. The margins of the fissure being brought well in apposition, a piece of strong silk or carbolised thread is twisted round each silver tube separately. Long narrow strips of sticking plaster are then passed over the lip, between the tubes and above and below them. The tubes can as a rule be safely withdrawn on the sixth or seventh day after the operation.

Mirzapur.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

EPITHELIOMA OF THE RECTUM REMOVED AFTER A NEW PLAN WITHOUT INJURING THE SPHINCTER ANI; RECOVERY.

(Under the care of Mr. ROUSE.)

FOR the following notes we are indebted to Mr. C. T. Dent, late surgical registrar.

I. C——, aged sixty-four, married, was admitted in May last with an epithelioma of the rectum of about six months' growth, situated on the left side of the bowel, about one inch above the anus. The growth was flat, sessile, of about the area of half a crown, and limited to the mucous membrane and the sub-mucous tissue. The deeper parts felt apparently uninvolved.

On June 17th Mr. Rouse removed the growth in the following manner. A curved incision, an inch and a half in length, was made, just outside to the external sphincter, and parallel to the outline of that muscle. The skin was then dissected up outwards for a short distance, so that the outer circular fibres of the sphincter were exposed. The muscle was then drawn over towards the middle line. By introducing the finger into the rectum, the growth was pressed into the external wound, and it was then cut out, together with that part of the wall of the rectum to which it was attached. In the way an opening, about the size of a half-crown, was made through the bowel. After the closure of the skin wound but a small cavity could be felt, corresponding to the former situation of the growth. The hæmorrhage was very slight.

Opium was given in order to keep the bowels confined for some days. The recovery was almost uninterrupted. For some few days slight feculent discharge took place from the wound, but after about three weeks this had completely ceased, and the patient then had entire control over the contents of the rectum. As a matter of fact, scarcely any fæces escaped, but the suppuration resulting during the granulation and closure of the cavity possessed a fæcal odour. When the patient left the hospital, about a month after the operation, the power of the sphincter was perfectly normal. The general symptoms were much relieved.

Remarks.—The advantages of this method of operating, in suitable cases, are obvious. In the instance described above, it is true, the growth was of small extent and limited to one side of the bowel. There seems no reason, however, why this operation should not be equally applicable to growths of much larger size. The advantage of preserving the sphincter intact is patent; no doubt, in some cases an operation of this nature might advantageously be substituted for complete removal of the lower end of the rectum. Certainly, numerous cases have been recorded where no incontinence of fæces followed the latter proceeding; but still this method of operation gives the patient additional security against a highly unpleasant condition, without any additional concomitant risk.

DUNDEE ROYAL INFIRMARY.

THREE CASES ILLUSTRATING THE DIFFICULTIES OF RECOGNISING INTERNAL CANCER.

(Under the care of Dr. SINCLAIR.)

THE following cases were all instances of well-marked malignant disease, though the symptoms were by no means characteristic.

CASE 1. *Cancer of lesser curvature of the stomach.*—D. S——, aged fifty-five, weaver, was admitted on Aug. 5th, 1879. The patient had been in good health till six weeks before admission, when he became troubled with "pain and weakness in the stomach." A week later he gave up work on account of œdema of feet and legs, and took to his bed. He had passed only half the usual quantity of urine during the last few weeks.

On admission his face was pale, but not cachectic, and the conjunctivæ were pearly; there was no jaundice; the appetite was much impaired, the tongue clean, and the bowels were regular; pulse 100, weak; heart sounds weak, but clear; sonorous râles in chest; considerable œdema of feet and legs; urine normal. Diarrhœa soon set in; the stools were ochry, but did not contain blood; there was no vomiting; the tongue was red and fissured. On Aug. 21st, the abdomen was distended, tympanitic in front, dull in flanks; dulness changed with change of position; the hepatic as well as the splenic dulness was normal; pain in right hypochondrium (which was referred by patient to "the stomach") continued. On Sept. 22nd there was still absence of vomiting, and had been since admission; the urine was free from albumen and casts, and the patient complained of nothing but weakness and loss of appetite. He, however, became steadily weaker, and died on Oct. 2nd.

Necropsy.—The body was fairly nourished. There was very great œdema of feet, legs, and genitals. There were old adhesions of the pleura on both sides. The bronchial tubes were congested, and there was œdema at the bases of the lungs. Weight of lungs 45 ounces. The pericardium bore traces of old inflammation, and contained a normal quantity of fluid. The heart substance was firm and the valves were competent. The coronary vessels were enormously dilated and very tortuous. Weight of heart 7½ ounces. The peritoneal cavity contained several pints of serum. Both orifices of the stomach were free from disease. The lesser curvature was occupied by a soft cancerous mass, suppurating in some parts, and everywhere breaking down readily under the finger. There was no disease elsewhere in the organ. The pancreas was so adherent to the stomach for four inches of its length that it could not be separated without causing perforations. Weight of stomach 17½ ounces. The liver was fatty; weight 37 ounces. The pancreas was unusually hard, but otherwise normal; weight 4¾ ounces. The capsules of the kidney were adherent, and the kidney tissue was pale and hard. Weight of both 9 ounces. The spleen was normal in structure; weight 2¾ ounces.

Remarks by Dr. SINCLAIR.—Emaciation, weakness, anorexia, occasional slight gastric pain and hydrops cachecticus were the only symptoms pointing to malignant disease of the stomach, but, in the absence of vomiting and discernible tumour, they could hardly warrant a diagnosis till it became evident that the man was sinking rapidly. The marked œdema of the lower limbs, without an evident cause in the heart, liver, or kidneys might, however, have awakened suspicion earlier.

CASE 2. *Primary cancer of greater and lesser curvatures and of the pyloric orifice of the stomach; secondary cancer of liver.*—G. R——, aged fifty-three, labourer, admitted Dec. 27th, 1879. The patient was in good health till six weeks before admission, when he began to suffer occasional but not severe pain in the umbilical, right hypochondriac, and right lumbar regions. He had no vomiting. The bowels were kept in action by laxatives for some time before admission.

On admission he was in no distress, but he appeared apathetic and was emaciated. There was no notable cachexia or jaundice. There was tenderness on pressure over the hepatic region. The hepatic dulness reached the umbilical level in nipple line, and within an inch of it in the ensiform line. The urine was dark amber, acid, 1030, with heavy deposit of urates and a little albumen.

He had no vomiting while in the hospital. About the beginning of January he became jaundiced, and died on Jan. 5th.

Necropsy.—The peritoneal cavity contained about two pints of bile-stained fluid. The liver was much enlarged, and presented evidence of old peri-hepatitis on the right lobe. The whole of the upper and lower surfaces were studded with cancerous nodules. On section the entire organ was infiltrated with cancer and cancerous juice. The upper surface was adherent to the diaphragm; weight eight pounds ten ounces. The stomach was adherent to the liver, pancreas, and diaphragm. On opening the stomach, about thirty polypoid masses were observed, varying in size from a large pea to that of a horse-bean, and situated mostly in the greater curvature towards the pylorus. The whole lesser curvature was occupied by a hard cancerous mass plainly visible on the peritoneal side. The mass extended into the pyloric orifice, which was somewhat narrowed; weight twenty-one ounces. The spleen was rather friable. The kidneys were pale, but otherwise normal.

Remarks by Dr. SINCLAIR.—Although primary cancer of the liver is a comparatively rare affection (according to Frerich's analysis 22 being primary and 69 secondary in a total of 91 cases), I hardly doubted that this patient suffered from the primary disease. This opinion even now seems quite tenable had there been no post-mortem examination, because there were no gastric symptoms, and there was indubitable evidence of painful enlargement of the liver. The value of this case consists in showing that, however exceptionally, a patient may die of gastric cancer affecting every important part of the organ except the cardia, without showing notable symptoms of the disease even when the morbid growths have increased the stomach to something like five times its normal weight.

CASE 3. *Cancer of splenic flexure of colon, causing fatal obstruction.*—On the evening of Feb. 4th, 1880, at the request of Dr. Low, K. H——, aged forty-nine, a rather weak-minded female, was seen, in consultation, at the East Poor-house. The patient was in her usual health till a week before, when she complained of loss of appetite and constipation. There was no vomiting till the 3rd of February, when some bile was ejected. On the following morning there was some stercoraceous vomiting. There had up to this time been no complaint of pain. The abdomen began to swell for the first time on the 3rd, and within twenty-four hours the distension had much increased. Urine was passed freely till the afternoon of the 4th. Except constipation she had had no urgent symptoms till the forenoon of the Sunday. She then had some opium. The countenance was pale and anxious; pulse feeble. There was pain only in the right iliac fossa. There was great and general distension of the abdomen, which was tympanitic all over. Some lumps of hardened fæces were found in rectum. The uterus was small, and free from adhesions or displacement. An enema of soap and water and liberal doses of opium were ordered; but the woman died suddenly, three hours after the consultation.

Necropsy.—The intestines in the neighbourhood of cæcum were covered with soft fæces, which had evidently come from a perforation about the size of a sixpence in the anterior wall of the cæcum. The small and the greater portion of the large intestines were enormously distended with gas and fluid fæces. The distension was particularly great at the cæcum, the walls of which were thinned at several parts. The ascending and transverse colon were so much distended that the latter resembled the stomach. At the splenic flexure of the colon an annular malignant stricture was found. Here the dilatation suddenly ceased, and the descending colon and rectum were found to be of much smaller calibre than usual, and contained some lumps of hardened fæces.

Remarks.—It was evident that this case was a very grave one, though, from the short duration of the illness, and the absence of all the characteristic symptoms of malignant disease, the theory of cancer was never entertained. Even had the tympanitic distension of the bowels been much less, the neoplasm, on account of its small size, could certainly not have been detected. It is just possible that a more intelligent patient might have furnished information that would have led to a correct opinion.

ALTRINCHAM HOSPITAL.

STONE IN THE BLADDER; LITHOTRITY, WITH EVACUATION; CURE.

(Under the care of Mr. T. TORKINGTON BLEASE.)

G. H. S——, aged sixty-eight years, a scripture reader, of sallow complexion, first came under treatment in November, 1879. He had been in delicate health for about eight years, and had consulted many surgeons. He had spent the winter, from Dec. 27th, 1870, to May 9th, 1871, in the Hospital for Consumption at Ventnor. He had frequently suffered from hæmoptysis, and during the same period had often had hæmaturia. At the time he applied to Mr. Blease the urine constantly contained a large quantity of pus, there was frequent desire to micturate, and there was great pain in the pelvic viscera and in the penis.

The patient was in great agony, having recourse to hot baths three times daily, and linseed-meal poultices over the sacrum and abdomen. The bladder had been examined six times by four surgeons during the eight years he had been suffering, but no allusion had been made by any of them to the viscus containing a stone. The patient hesitated a long time before he would submit to another sounding, but on Jan. 10th, he allowed an instrument to be passed into the bladder, and a stone was at once discovered. The nature of the case was explained to the man, and, with the sanction of his colleagues, Mr. Blease advised the operation of lithotrity, with rapid evacuation, on Bigelow's method.

On Jan. 29th he was placed under chloroform, and the lithotrite was used. Thirty grains (dry weight) of a calculus was washed out, when it was found inconvenient, in consequence of the smallness of the bladder, to use the lithotrite longer. After this and the subsequent operations the circulation and temperature remained undisturbed.

On Feb. 9th the lithotrite was used again, and 117 grains of stone were washed out. On Feb. 18th the lithotrite was used a third time, and fifty-three grains were removed in a similar manner. There was still a very small portion in the bladder, but it could not be seized, and on March 3rd it was thought desirable to send the patient out of hospital for a short time. From domestic causes he was unable to return before June 14th, when a fourth operation was performed, and every particle, thirty grains, was removed.

Remarks.—No doubt fewer operations would have been necessary had not the bladder been so much diminished in size. After each operation the troublesome symptoms were less, and the patient might have left the hospital the day after the last crushing, but he remained six days, when he was discharged cured. The man had doubtless been suffering many years from stone in the bladder, but although he had been examined by four different surgeons, and the symptoms had grown more severe each year, no operative interference had been suggested. The case affords additional proof how tolerant a bladder may become, even when in a very unhealthy condition. The stone was composed of uric acid, with an oxalate of lime nucleus.

Reviews and Notices of Books.

Hygiene and Treatment of Catarrh. By THOS. F. RUMBOLD, M.D. St. Louis: Geo. O. Rumbold & Co. 1880.

THIS is a semi-popular and readable little work upon the prophylaxis and treatment of a "common cold"—a subject to which the writer tells us he has long given much attention. It abounds in advice, for the most part sensible enough, although here and there it would not be difficult to differ from the writer, who seems to have been carried away by his subject. For example, the closing chapter is devoted to an exhaustive counterblast against tobacco, the use of which he maintains is positively pernicious to a catarrhal patient and of very questionable benefit to the healthy; since, he maintains, its effect is invariably that of a depressant, whilst locally it produces a permanent state of congestion of the mucous membrane of the upper respiratory tract. There is no denying the truth of some of his statements, but it is not possible to follow him through his whole indictment. The book is well-planned. It opens with chapters on personal hygiene, in the matter of head-coverings, the treatment of the hair, clothing, &c., and many valuable hints are given on these points. The writer is especially severe and somewhat satirical upon the prevailing fashion of female dress and head-attire—to the use of which he attributes rightly enough many catarrhal attacks. He is a firm believer in the efficacy of inunction, not only for the head and

feet, but for the body generally; and his favourite unguent for this purpose is vaseline. He speaks strongly about the importance of free ventilation of the sleeping apartment, and urges, rather extravagantly, that disturbed mental states predispose to catarrh, and warns people against giving way to anger and ill-temper. On this latter point some may object that he has mistaken the *post hoc* for the *propter hoc*, for it is notorious that a common cold does not generally conduce to an equable frame of mind. Upon remedial measures he is especially urgent in inculcating the use of frequent and thorough cleansing of the nasal and laryngeal passages, and shows that the Weber douche does not fulfil its requirements, for as commonly applied it leaves untouched portions of the nasal cavities, where secretion most frequently is lodged. Moreover, he has had cases where inflammation of the antrum and otitis have been set up by its employment. He has therefore discarded this apparatus in favour of a spray douche, which he figures and describes. A chapter is also devoted to the cleansing of the ears, for which he employs a modification of Lucæ's injector. The widespread prevalence of catarrh, the scanty consideration usually given to it both by laymen and medical men, render this book one of some utility, and in spite of a tendency to magnify the importance of the subject it will repay perusal.

Alcohol Tables, founded on the Tables of Fownes and Drinkwater. By OTTO HEHNER, F.C.S. London: Churchill. 1880.—This useful compilation gives the percentage of alcohol by weight and by volume, and the percentage of proof spirit for every unit of specific gravity, from 1·000 to 0·7938—that is, from pure water to pure alcohol. It will save analysts much trouble.

Tables for the Analysis of a Simple Salt: for use in School Laboratories. By A. VINTER, M.A., late Scholar of Gonville and Caius College, Cambridge. London: Longmans & Co. 1880.—We are already flooded with little books of this kind. Why they are published is a mystery, each one seems so like the one before it.

ABSTRACTS OF

INTRODUCTORY ADDRESSES.

ST. MARY'S HOSPITAL.

INTRODUCTORY ADDRESS BY WALTER PYE, F.R.C.S., ASSISTANT-SURGEON AND LECTURER IN PHYSIOLOGY.

AFTER welcoming in a few words the old friends of the school who had met together to celebrate the beginning of another medical year, and those who were as yet strangers to their school and to their work, the lecturer warned the latter against entering the profession unless they were prepared to follow it for its own sake, and urged those whose motives for joining it were interested or unworthy to give up the task now before it was well begun. In discussing the prospects of those who honestly loved their work, he said that while the getting of large incomes was the fortune of very few, still none could fail, except through their own fault, to earn money enough for comfortable subsistence. The prospects and standing of the profession, however, were not to be judged by a mere money standard; in the eyes of the outside public its importance was being every year more recognised, and the social position of its members was steadily rising; this was not due to a better appreciation by the world outside of the higher aims of medicine, but to a steady improvement in the culture and education of medical men. The lower standards, however, of previous education, he held, were not yet high enough nor broad enough, and he urged that a scientific education, which should be really preliminary to the professional education at the hospital schools, should be made compulsory for all; and that the schools themselves should be relieved from the necessity of teaching the elements of sciences which were only allied to medicine. He pointed out that not only would this course leave the student free to give his whole attention to his proper work as soon as he came up to the hospital, but that the systematic cultivation of scientific habits of thought was of the greatest importance to medical men, even though in after years the actual details of what they learnt did not remain in their memory. Men came up to the hospital, not to learn to be chemists or botanists, but to be doctors; but the latter they could not be, in the highest sense of the term, unless they had gone through a previous scientific training.

The course of study of a medical student seemed to be peculiar in this, that it grew steadily more and more pleasant, even more and more easy, to pursue, as the student advanced in it. No argument was needed to prove that both naked-eye and microscopic anatomy were to be mastered; but he held that the study of physiology was even more essential, and he insisted on the importance of progress in this branch of their work, and on the necessity which lay upon all who hoped to advance their art of studying it both normally and pathologically. He pointed out that medicine at the present day was advancing, not as it had been for the last two hundred years, simply by the accumulation of clinical experience, but by striving as far as possible to reduce its practice to the conditions of that of an exact science—to establish a new empiricism; and he said that though the ideal end of this school of practitioners would never be reached, still, every step towards it was a step in the right direction, and that the only way in which advance could be made was by the earnest study of physiology. The progress in the way of exactness in medicine which had been made during past years was real, and gave promise of an abundant harvest in the future. He strongly urged the junior students to get their first professional examination over as soon as possible, and till that was done not to attempt to do any clinical work in the wards. That examination—or those examinations—over, the most enjoyable part of their student's life lay before them. This was divided into work in the wards as dressers or clinical clerks, and work in the out-patient rooms and casualty room. In the wards of the hospital students were to recollect that the standard of illness was very high, and that those cases which looked commonplace by contrast with still more severe ones there would be regarded as very serious ones indeed under any other conditions. He reminded them that the more common illnesses in the wards would be the ones they would most frequently see on leaving the hospital; and he urged them to take careful and continuous histories of all the patients they had to watch. When surgical dressers also, they were advised to study to acquire habits of manual dexterity and mechanical ingenuity in dealing with the varying difficulties of their cases. He pointed out that in the out-patients' rooms their work and the lessons they had to learn from their patients differed considerably from their experience in the hospital wards. In these latter patients were put in the best possible condition for getting well. In the out-patients' rooms few of the really ill were able to receive the treatment they most required—namely, food and rest in bed; these rooms, however, were the great school for the getting experience of illness and of habits of rapid diagnosis and self-dependence; but they were to bear in mind that the treatment was generally a compromise, and not that which patients ought properly to have. He advised the students to haunt the hospital, and to know its aspect at all hours of the day and of the night; but he reminded them that during their life in London they were not to neglect to cultivate their faculties in other directions; they were to recollect that they had to be in the highest sense men of the world, able to appreciate the cultured thoughts and words of others; and in order to be able thus to get the best out of their lives they should not pass by those storehouses of literature and art that nowhere were so large or so easily entered as in London.

He warned them against the use of books as means of getting that knowledge which should be learnt at the bedside; text-books should be merely used as means for sorting or pigeon-holing knowledge previously acquired; and the really original professional works should not be studied until the student was well-established in the practical knowledge of disease.

In conclusion, he reminded the students that in the case of St. Mary's the school and hospital had one foundation and could only exist together; they had common interests,

common hopes and fears, and while they could look back upon an unsullied past they must not forget that the original scheme of the hospital exceeded by far its present size, and that its usefulness, both as a great charity and as a medical school, fell, from its limited accommodation, far short of what was required by the district in which it was placed or designed by its founders. Their hopes for its enlarged prosperity in the future were high, and could not but be soon fulfilled if they determined in the present to sustain its good name and good fame as they had received it, till the time came for them to hand it down stainless to their successors.

WESTMINSTER HOSPITAL.

INTRODUCTORY LECTURE BY DR. DONKIN,

SENIOR ASSISTANT-PHYSICIAN TO THE HOSPITAL.

THE lecturer took for his subject the duty of the doctor towards society and some of his derelictions therefrom, considering also the reciprocal attitude of society to the doctor, and showing that the widespread ignorance that existed of the nature and scope of science made undue demands from the profession, and must be held partly responsible for the dishonest quackery that still disfigures it.

Attention was called first to the wide foundation of varied knowledge on which medicine was based, and one of the first duties of the doctor towards society was shown to be the endeavour to keep abreast of the advancing tide of knowledge. Modern invention and recent research were doing much to increase the difficulty of this work and add to the responsibilities of the profession. At the same time it was none the less incumbent on the practitioner to keep firm hold of the knowledge accumulated during past ages, which, though to some extent wanting in definiteness and communicability, was invaluable to the practical physician, and should be appropriated by the student with as much care as the results of the latest lights of science.

One more important point to remember was the part played by the mind in the causation and modification of many diseases, the doctor's whole duty not being always discharged by an examination of the patient, which was strictly physical in the narrowest sense of the word. To obviate errors from the neglect of this consideration a careful and sympathetic study of human character was necessary.

The difficulty of fulfilling these duties being obviously great, examples of transgressors were not far to seek. The quack still flourishes under various aspects, and prominent among this class were those who professed to have a definite "system" of therapeutics, and were always ready to give a plausible explanation of their method of procedure to those who were entirely ignorant of the subject. A complete system of therapeutics was impossible while the knowledge of disease remained as imperfect as it was; he, therefore, who professed to be the possessor of such a system was an impostor. Quacks of this order ignored the scientific studies of the causes of disease, and looked no further than the symptoms, thereby flattering the intellect of the patient, whose vision was similarly limited. The practice of the homœopath, both concealed and confessed, was an instance of this, in that it made capital out of the ignorance of the public and the common desire of men to know by what method they were cured. Men, after all, had no scientific right to expect that any given disease should be curable, and a more scientific knowledge of what disease is in its relation to health would show them that it was more rational to be surprised and thankful that any of their ailments should be cured than to grumble at the powerlessness of medical art to dissipate them all. There was not, nor was there reason that there should be, any real parallel relation between drugs and disease, although it had always been the popular superstition that there existed in nature a remedy for nearly every ill, if only the doctors could find it out. Of this superstition the quacks of all ages had taken, and were taking, advantage. They had their reward, for they flourished well.

A prominent form of quackery in orthodox ranks was that of exaggerated specialism, which was based on the plausible and popular teaching that the body could be studied piecemeal. Hence arose a posse of doctors for almost every organ of the body; hence also a perverted use of instruments in themselves valuable—instruments rendering possible an inspection of parts of the body invisible to the unaided eye and beyond the patient's own power of observation. Might not this very possibility evoke sometimes from its lurking-place that evil spirit of designing Quackery which sank the profession in the trade of medicine, and tempt it to turn Invention to its own base ends by forcing the "regular" practitioner, whose body it too often inhabited, to raise a false alarm of a disease which he declared himself specially able to cure? And a fancy not over-fertile might picture a perhaps fabulous or professedly curable ailment of one organ of the body exclusively treated by such perverted art, while fatal maladies were running their silent course unrecognised or, still worse, unreported by the skilled observer. It was to be deplored that ever the ark of science should be touched by such unholy hands.

The ignorance of the public as to what the science and art of medicine really were, and a widespread hostility to scientific method, coupled often with an arrogant assumption of knowledge, were important factors in the production of these men, who disgraced their profession. Were the "dry light" of science to shine more widely, the various emotional "systems" and opinions of the time would fade away, and we should hear less of the motley view of anti-vaccinational, anti-vivisectional, homœopathic, vegetarian, and total abstaining fanatics. It was on pabulum such as these that the quack of modern time lived and flourished—on the credulity of the classes who think they know. A more general teaching of the elements of biological science would tend largely to benefit the community, and by enlightening, the public would help both to purge and strengthen the ranks of the medical profession.

RECENT RESEARCHES ON THE ACTION OF DRUGS.

THE problem of the antagonism of poisons, which seems destined, for a long time, to be a *quæstio vexata*, has been re-examined by Mr. J. N. Langley, at Cambridge, in reference to certain statements of Rossbach. The latter affirms that when a tissue has been paralysed by any one alkaloid it can neither be stimulated nor restored to its normal condition by any other alkaloid. In the submaxillary gland, for instance, if the chorda tympani nerve has been paralysed by atropin, no amount of physostygmin or pilocarpin can, according to him, make it again irritable. He holds that in glands there are two parts to be considered, the nervous and the glandular part, that small doses of alkaloids affect only the nervous part, while large doses affect the glandular part in addition. After atropin has paralysed the chorda tympani, pilocarpin may still affect the gland cells, but they cannot be affected by it if the dose of atropin was sufficiently large to affect the gland cells also. Langley has ascertained certain facts which militate strongly against this view. If a small quantity of atropin be injected, the secretion, which is arrested, can be restored by pilocarpin. If a stronger dose of atropin is injected, the same dose of pilocarpin will no longer restore the secretion. Hence, according to Rossbach, this large dose of atropin has affected the gland cells as well as the nerve. But Langley finds that a still larger dose of pilocarpin will again restore the secretion. Thus, whether the larger dose of atropin acts on the cells or not, the pilocarpin must have been antagonistic to it.

Certain recent researches into the effect of large doses of strychnia have brought to light some most remarkable facts. In poisoning by this agent the convulsions and toxic action are remarkably lessened by artificial respiration. This was first shown by Rosenthal, who asserted that double the ordinarily-fatal dose was necessary, under these circumstances, to cause death. Experiments which, in the main, confirm these statements have been made by Loube, Pauschinger, and Buchheim. M. Richet, however, has recently informed the Académie des Sciences of the startling fact that when artificial respiration is maintained, a dose of strychnine 100 times that which is usually fatal may be administered without causing immediate death, and that the effects are altogether different from those which result from ordinary

doses. The quantity of strychnia which is fatal to a dog of ordinary size is two or three milligrammes. If one centigramme is injected beneath the skin, or into the saphenous vein, of a dog, in the trachea of which a cannula has been placed, the animal is seized in about a quarter of a minute with a violent convulsive attack, which would be fatal were it not for artificial respiration. Under the latter, however, the attack ceases in a few seconds, and the heart, after a period of irregular action, resumes its normal pulsations. Still larger doses of strychnine can be thus injected without causing the death of the animal. The toxic phenomena vary according to the dose injected. There is first a tetanic period, and later a convulsive stage characterised by violent, incessant, spasmodic contractions of nearly all the muscles. A little later, when the quantity of strychnine injected exceeds one centigramme per kilogramme of body weight (say one decigramme, a grain and a half, for an average-sized dog), a stage occurs which may be termed choreic, marked by violent rhythmical shocks, recurring at intervals of three or four seconds, and separated by periods of almost complete resolution. When the dose exceeds four centigrammes per kilogramme of body weight (say half a gramme, or seven grains, to a medium-sized dog), the choreic shocks do not occur; there is a final stage of complete resolution, when reflex action is abolished, spontaneous respiratory movements have ceased, and the heart contracts with frequency but regularity. The pupil, dilated at the onset, becomes strongly contracted. Arterial blood pressure, raised at the commencement of the poisoning, gradually falls, and the rectal temperature varies correspondingly, rising during the convulsions to 105° or 106° F., to fall to 96° during the period of resolution. Dogs and rabbits, to which these large doses have been given, may be kept alive four or more hours by artificial respiration. If the latter is interrupted for a few seconds, say for half a minute, the heart stops, and the animal is dead. Loss of blood, even of a small quantity, will also cause death. In order to ensure success in these experiments, the strychnine has to be injected with a certain slowness, an hour being given for the injection of half a gramme (seven grains). The artificial respiration must be vigorous, and success is more readily obtained with rabbits and small dogs than with larger dogs. If instead of these large doses, very small quantities are employed, say one milligramme per kilogramme of body weight, death occurs rapidly by syncope. The cardiac failure is not at first fatal, but after three or four attacks the animal dies. When the dose injected is fifty times as much these syncopal attacks do not occur, and it can then be ascertained that the pneumogastric has scarcely any action upon the heart. The muscles preserve their normal irritability. The action of the motor nerves is lessened, but is not abolished. Thus the complete absence of spontaneous movements is to be ascribed to the effect of the strychnia upon the spinal cord, rather than to the loss of the functions of the motor nerves, or of their terminations. The animal is in a condition analogous to that produced by chloral or alcohol. We cannot, from these experiments, derive much hope of dealing more successfully with strychnine-poisoning. As the poison is eliminated, and its dose thus lessened, its effect upon the heart increases, and death results from syncope. But in cases in which it is important to prolong life for a few hours, this might be effected by prompt tracheotomy and vigorous artificial respiration.

Bromide of ethyl has been found by M. Rabuteau to be an efficient internal remedy, chiefly as a substitute for chloroform, over which, however, it does not appear to possess special advantages. Given by the stomach, it was found to relieve gastric pain, without affecting the appetite. Inhalations readily relieve convulsive cough, and, introduced on cotton-wool into the external meatus, it relieves the pain of otalgia without causing any irritation. Claude Bernard showed that the vapour of chloroform and of ordinary ether hinder the germination of seeds, and M. Rabuteau has found that it is equally true of bromide of ethyl and of bromide of amyl. He finds also that all the ethers have the same effect. The experiments were made with cress seed. But the property of germination is merely restrained. Seeds kept for thirty-seven days exposed to the vapour of bromide of ethyl or bromide of amyl, germinated, when placed under proper conditions, in two days. The question then presents itself, Have these substances a similar action upon plants which are in full progress of growth? Growing cress was exposed for two hours to an atmosphere saturated with vapour of bromide of ethyl; it then appeared feeble, the leaves hanging down, and it continued in this condition for a day or two, and then revived, but exhibited considerable retardation in its growth compared with other plants of the same age. The leaves of heliotrope become brown, and die in the course of two hours. Acetate of ethyl is somewhat less powerful. Cress lives after it has been exposed to the vapour for three hours, but does not survive an exposure of six hours. Heliotropes are only killed by an exposure of three or four hours. The action of acetate of ethyl is also correspondingly less active in animals.

The effect of salicylic acid on muscular contractility has been studied by M. Livon. Frogs poisoned by this substance present tetanic phenomena. Tracings obtained from the contracting muscles show that the salicylic acid causes an increase of excitability, followed by a considerable diminution and by an irregularity in the latent period. The tetanus which occurs may present two forms. One resembles closely that which results from electrical stimulation, and a second, altogether different, which presents a rhythmical character. In the latter the muscle is in the condition which has been termed "contracture," which continues until the muscle is exhausted, and will no longer respond to faradisation of the sciatic nerve. This exhaustion is apparently not due to any effect of the drug upon the muscles; its action seems to be solely upon the nerve centres. The phenomena of the rhythmical tetanus lead M. Livon to believe that the rhythmical action of the heart is not due to any peculiarity in its muscular structure, but solely to its different mode of stimulation.

The inutility and even harmfulness of salicylate of soda in typhoid fever was well established, both in this country and in Germany, soon after the introduction of the drug. Objections to its use in this disease will not be lessened by a recommendation of it recently made by M. Hallopeau, since he had three deaths in twenty cases. M. Labbé has tried it in erysipelas and found it useless.

Sulphocyanide of potassium has been regarded as a "muscular poison," but this opinion is opposed by some experiments of Dr. J. V. Laborde, the results of which have been described in a series of articles in the *Gazette Médicale de Paris*. He first ascertained that a relative tolerance could be established when the dose does not exceed a gramme; and then, by almost daily administration, he kept an animal under its influence for more than six months. The general health was but little disturbed until the end of the fourth month, when considerable emaciation occurred, and little food was taken. The condition of muscular contractility examined in the thigh or leg at different periods, never presented the least alteration appreciable by any ordinary means of investigation. The cardiac pulsations lessened notably in force and number in accordance with the depression of the nutritive functions. The animal appeared, however, to be in no danger of death, when it suddenly succumbed to a comparatively trivial operation, the intravenous injection of water. From this and many other experiments M. Laborde concludes that the muscular contractility is not primarily or directly affected by the sulphocyanide of potassium.

Euonymin is a drug which, although of some previous repute in America, was introduced to the profession in England mainly by Dr. Rutherford's investigation into its power as a cholagogue. It has been little employed in medicine, but a case in which pseudo-membranous colitis was treated by it successfully has been published by M Blondeau. The case had resisted many courses of treatment, but disappeared in six days on five centigrammes of euonymin night and morning.

GUY'S HOSPITAL.—On the 28th ult., at the ordinary meeting of St. George-the-Martyr, Southwark, Mr. Robins moved, "That a petition be presented to the honourable House of Commons by the vestry, praying an inquiry, if possible, by a committee or commission appointed for the purpose, into the management of Guy's Hospital, in the parish of St. Thomas, Southwark, an institution founded in the last century by Thomas Guy for the relief of poor sick people, endowed with an income which has now become perhaps nearly £50,000 per annum, for this purpose; and which institution there is great reason to believe is, and has been for some time past, most inefficiently and improperly managed." The motion was seconded by Mr. A. Hawkins, member of the London School Board, and, after a lively discussion, was carried.

THE LANCET.

LONDON: SATURDAY, OCTOBER 2, 1880.

IT is much to be regretted that a strong and widespread feeling of dissatisfaction exists at present in the Indian Medical Department, and that its development has been in a considerable degree due to official mismanagement on the part of the authorities in India. When it was decided to be necessary that the dual administrative staff of the medical services should be abolished, instead of promulgating in its entirety a well-considered scheme of reorganisation, the authorities in India published a General Order by which the Indian Medical Service was deprived of a number of administrative appointments, without a hint being given of any intention to compensate it for the loss, except in the case of the actual holders of the posts to be abolished. It cannot be a matter of surprise that this General Order created dismay in the department and called forth energetic remonstrances against the injustice which it appeared was to be inflicted by it. After a lapse of ten weeks the authorities published a second General Order creating a number of administrative appointments, chiefly in connexion with the civil department, which, if judiciously made, might be fairly considered as compensation for those which had been withdrawn. It is difficult to understand upon what principle this second General Order was so long kept back if the new organisation were settled, and if it were not it is still more difficult to conceive how the Indian Government could break up so important a branch of the public service without having made any arrangement for its future management. It is, at best, an example of intense official stupidity. Though the discontent created by the first General Order was, to a considerable extent, removed by the second, it was again brought into action by the manner in which the newly-created appointments were filled up; two of the Surgeon-Generalships were given to Surgeons-Major, and the third to an officer who was made Deputy Surgeon-General only a few days before, and apparently with a view to his promotion. In defence of this course it has been stated that the officers thus promoted were men of long service and of marked ability. But two of them had previously declined promotion to enable them to retain lucrative appointments, and, although there was no regulation on the subject, the custom of the Service has been that such refusal was a bar to all future promotion. At one time in the British Army officers were occasionally, for a similar reason, allowed to decline promotion by brevet, sometimes oftener than once, and when it suited their convenience, or their post was required for some other favoured individual, they were promoted *per saltum* to the place on the list of Generals which they would have occupied had they never refused it. This, however, was found to give rise to so much favouritism and jobbery that it was stopped, and we believe no case of the kind has occurred for the last thirty years. It is to be regretted that such a course was permitted on the present occasion, when even under the most favourable circumstances many cases of hardship must have unavoidably occurred in connexion with the new organisation. The agitation which arose out of the circumstances above detailed naturally led to a consideration by the officers of the general position of their service, and brought out grievances which, under more tranquil conditions, might have passed unnoticed for many years. These have been discussed in the documents issued by the Indian Medical Officers' Defence Committee, and in our columns and those of our contemporaries, and we now propose to tak a brief general view of them and of the remedies proposed for them.

The first grievance to which we shall advert is the difference of relative rank granted to Surgeons and Surgeons-Major in the British and Indian Medical Services respectively. In the former the Surgeon ranks on first appointment as Captain, and the Surgeon-Major of twenty years' service as Lieutenant-Colonel, according to the date of commission; while in the Indian Service they rank respectively as Lieutenant and Lieutenant-Colonel but *junior* of the rank This is a disparity between officers of the same grades and employed on the same duties which ought at once to be abolished. A step of honorary rank is granted on retirement after twenty years in the British, but only after twenty-five in the Indian Medical Service. This is really a point of very little importance, but it appears to create an invidious distinction between the two classes which might be advantageously removed. In the Indian Service the Surgeon must undergo an examination before he is eligible for promotion; as this ordeal has been discontinued in the Army Medical Department it seems only fair that it should now be given up in the Indian, especially as it frequently involves considerable inconvenience from the necessity of the officer proceeding to the head-quarters of the district for the purpose. The time spent at home on sick leave is not allowed to count as service for retirement. It may probably be necessary to guard strictly against any abuse of sick leave, and to put some limit to the length of time which it might be permitted to cover, but we think the subject deserves the consideration of the authorities, with a view to reduce the hardship involved in such a rule in the case of officers who have lost their health from causes not within their control. The scale of retired pay in the Indian Service demands reconsideration. It is much lower than in the British, and wholly inadequate. In former days, when it was supplemented by the Medical Funds, and when the opportunities of making money were greater, while the expenses of living in India were less, it may have been sufficient, but in the changed state of these matters it is certainly a serious though happily a remediable grievance. We have repeatedly called attention to the niggardly hand with which honours and decorations are bestowed on the Indian medical officers, and in this respect also an equitable adjustment is required. That only one officer of that service should be decorated with the Order of the Bath is far from creditable to the military authorities of India, for we presume that it is solely from the want of a recommendation on their part that such a state of things exists.

It appears to us of importance that a definite rule should be laid down with reference to officers declining promotion on the grounds of personal convenience. This should not be permitted at all, or, if ever sanctioned, under very

special circumstances, the refusal ought to be a bar to any future promotion. It also seems very desirable that a regulation should be made to prevent the promotion of a Surgeon-Major to Surgeon-General without having served in the intermediate grade.

Another important change which appears to be called for is the introduction into the Service of the grade of Brigade Surgeon. This would tend to remove the feeling which has been created of injustice to the officers from the reduction of the number of Deputy Surgeons-General. The arguments in favour of the creation of this grade in the Army Medical Department apply with equal force to the Indian Service, and it is difficult to see how such an important difference in the grades of two departments working together can exist without creating a feeling of discontent in the one from which it is withheld.

There is still another point to which we must refer. It has been stated as a grievance by some of the Indian medical officers that all the Surgeon-Generalships of the military branch are to be held by officers of the Army Medical Department, and a claim has been advanced that half of these should be given to Indian officers. But it must not be forgotten that the three Surgeons-General of the military branch withdrawn from the Indian Service have been replaced by three in the civil branch. If, then, the demand for the restoration of half of these appointments were complied with, it could only be done at the expense of the Army Medical Department, and we have not yet seen any proposal to compensate that department for the loss to which it would thus be subjected. If the Indian Service is to be rewarded in this manner, it must be prepared to give up some equivalent in exchange—perhaps one-half of these civil appointments. It has been made subject of complaint, also, that the Sanitary Commissionerships are not to be reckoned as equal to Deputy Surgeon-Generals' appointments till the officer has put in twenty-six years' full-pay service. It has always appeared to us that these officers should have been made from the first Deputy Surgeons-General. They belong to the military branch, and are merely lent to the civil; and it would have been much better if they had been created Deputy Surgeons-General for sanitary duties. We trust this solution of the difficulty may yet be resolved upon by the Government.

The great obstacle in the way of these improvements is, of course, the increased expenditure involved in them. Among the chief reasons for the recent changes were the useless expense of the dual administrative staff, and the necessity for retrenchment so far as was consistent with efficiency. The adoption of the measures above recommended would, however, absorb much more than the amount which has been saved by the newly-introduced system. It is a vital question, therefore, how the financial difficulty is to be met. Probably this might to some extent be effected, as it was in the British Service, by the adoption of the station hospital system. It has been found to work well in the one department, and there seems no good reason why it should not do so in the other. On active service, as has been proved in the Afghan war, it carries with it many advantages, especially with reference to the diminished amount of transport required. The inquiry which the Marquis of RIPON is understood to have directed to be made into the grievances of the Indian medical officers might, with great propriety, be extended to include the whole working of the Department in India. We have no reason to doubt that, with the advantage of the experience acquired from the several reorganisations of the Army Medical Department during the last twenty years, a scheme could be devised for the efficient working of the Service with a staff considerably less than has been deemed requisite under the old system, and that the increased expenditure necessary to remove complaints and to keep the Service as attractive as it has hitherto proved, might be met by the reductions which could thus be made in the Department, not only without loss, but probably with a considerable gain to its working powers.

IT can hardly be said that we are even yet in a position to satisfactorily account for the production of the first sound of the heart. The generally received explanation is that it is composed of two elements, a valvular and a muscular—although physiologists differ upon the exact share taken in its production by the contraction of the heart-muscle, and some even doubt its share at all. A paper was read at the meeting of the Paris Academy of Medicine on Aug. 31st, by M. ROSOLINO, of Athens, in which (so far as we know) an entirely novel and not unreasonable explanation was broached. This observer maintains that the sole cause of the first sound is the vibration of the chordæ tendineæ in the systolic eddy of the blood-stream. He argues that if it were due to the flapping together of the valve-cusps, it should be produced mechanically by simple traction on the cusps by the cords; but experiments on the human and equine heart fail to bear this out. A simple membrane which from being lax is suddenly stretched produces a sound; but the valve-cusps exist under more complex conditions—since they are more or less fixed by the chordæ, which are inserted not only on their free margin, but also on their surface. The cusp is not therefore free to move in its whole extent, like an unattached membrane; and it is rendered tense by the general contraction of the papillary muscles. Nor is the first sound due to the passive closure of the valve by the blood-column. VALENTIN thought this might be the case, and endeavoured to prove it by showing that a similar sound was produced by suddenly distending with fluid a coil of collapsed intestine; but he could not have obtained it had he artificially enlarged the calibre of the intestine previously, and then stretched its walls. If the sound is abolished by hooking up the valve, it is because the procedure also destroys the meshwork of the chordæ tendineæ. Again, M. ROSOLINO has produced a similar sound by projecting a current of water over cords attached at both ends, and disposed like the chordæ tendineæ. He rejects the muscular hypothesis, not from his own research, but by the facts advanced by CHAUVEAU and FAIVRE. Nor is the theory of its production by the friction of the blood against the walls of the auriculo-ventricular orifice tenable, since in that case the bruit produced in aortic constriction, where this friction would be most developed, should partake of the characters of the first sound instead of a blowing character. The ventricular wall, tense and solid as it is, cannot vibrate like the chordæ, which from their tenacity, their tension, and their freedom from attachment except at the extremities, are in a condition to allow of true vibrations. As stated above,

we are not aware that this explanation has been before offered. It is ingenious and worthy of consideration, but at the same time it must be obvious that in cases of simple regurgitation from dilatation of the cavity, the condition of the chordæ may be almost unaltered, and yet the first sound will be abolished, or rather replaced, by a murmur; and it is difficult to entirely throw over the view that the actual impact of the cusps, and their sudden tension during systole, is not a great element, if not the sole cause of the sound.

THE questions to be discussed by the Council of the Hospital Sunday Fund on Tuesday next, on the report of the Distribution Committee in reference to objections to the grant to the Eastbourne Convalescent Hospital, are very important; but they readily admit of being misrepresented or misunderstood. They are nevertheless also very simple. The Hospital Sunday Fund is a fund raised by all the churches and chapels in the metropolis. Christians and Jews, Protestants and Roman Catholics, vie with each other one day in the year in contributing towards the support of public hospitals, conducted on public principles, and open to all comers without distinction of creed, and on an understanding that once admitted their creed will be respected. Obviously such a fund possesses two characters which, unhappily, are not often blended. It is at once a religious fund, and yet a perfectly unsectarian one, that should be distributed without suspicion of being applied to indirect or sectarian purposes.

It will be seen that in the very nature of the case it is desirable to exclude from the discussions of the Hospital Sunday Fund all merely theological questions—such as the baptism of patients in hospitals, the propriety of urging them to go to the confessional, of holding up to a dying dissenter an image of the Virgin Mary, &c. &c. These are all questions that are clearly coming thickly and quickly to the front. Even a more fundamental question is threatening—namely, whether hospitals are to be considered as medical or as ecclesiastical institutions. It requires very little observation to perceive that a certain religious party is disposed to look upon a hospital as a special field for doing theological work, and that the theological or ecclesiastical purpose transcends any merely therapeutical purpose as the soul transcends the body. It is very clear that if this doctrine is to be pushed the medical profession will have to make it clearly understood that hospitals are for the cure of sick bodies, and not places for disturbing the mind with the petty questions which divide one church from another. And unless we underrate the common sense of the public, the public will insist upon this view being taken, and will refuse to allow hospitals built or supported by public contributions to be used for personal or sectarian purposes.

But though such questions are indirectly involved in the discussions which are to take place in the Council of the Hospital Sunday Fund, and will be far more directly raised unless the party that is trying to convert hospitals from medical to ecclesiastical uses shows more discretion and moderation than it has yet done, they do not essentially arise at the present moment.

The real question to be determined on Tuesday is far more simple and hopeful. It is this: Has the Eastbourne Convalescent Hospital "a committee duly constituted"? If not, has it any claim on the Fund? Or has the Council of the Hospital Sunday Fund any power to grant it an award? Of all the laws of the Hospital Sunday Fund, none is more clear and none is more indispensable than Law 4, which reads thus: "Those hospitals and dispensaries [only] which are managed by a committee duly constituted, and which produce their printed reports, with balance-sheets audited for the last three years, shall be *allowed* to participate in the Fund."

The institution at Eastbourne, finely situated and in many respects exemplary, has not a committee. Were a scandal or an abuse to arise in it, it would be very difficult to appeal to any visible or tangible authority. It is, in fact, not at present a public hospital. By the admission of the deputation which waited on the Distribution Committee on Tuesday, it is virtually a private hospital, reared by the munificence of two or three ladies, and committed by them to four trustees, of whom one only is active and the others do not appear. Such an institution may have all sorts of virtues, and no doubt it does a great amount of good. But it is not a public institution. It cannot be made so until its subscribers are called together and duly elect a committee and other officers. The public and the profession will perhaps be surprised to hear that no meeting of the subscribers of this hospital has ever been held. When such a meeting shall have taken place, the institution will have a strong claim on the Hospital Sunday Fund, and this Fund may trust to the representation of all interests on the committee to be appointed. Such a committee is promised, and that is a great step gained by the discussion which Dr. GLOVER has raised. But until it is appointed the hospital is not a public institution, and any grant made to it by the Hospital Sunday Fund will be made in violation of one of its most proper and indispensable laws.

Annotations.

"Ne quid nimis."

WORKHOUSE VITAL STATISTICS.

THE statistics of workhouse infirmaries are valuable from a sanitary, medical, and a social point of view. It is to be regretted that such statistics are not more generally available, and that they are not compiled with a greater regard for uniformity than is now the case. A report has recently been published which deals with the statistics of the Shoreditch Workhouse Infirmary for the year ending Lady-day last, prepared by Dr. Forbes, the medical officer. Although the report is open to one or two objections, the value of its figures stimulates the wish that similar information were forthcoming for other kindred institutions. In the first place, however, we are obliged once more to enter a protest against such reports dealing with years ending on any other day than Dec. 31st. The report before us deals with the last three quarters of 1879 and the first of 1880, a manifestly inconvenient arrangement. During the four quarters 2356 cases were treated in the infirmary, showing a further steady increase upon the annual numbers since November, 1872, when it was opened. The admissions, which were 1281 in the first year of the institution's existence, were 1804 last year. The average daily number of inmates resident in the infirmary during the year under review was 447. It is noticed that, although the admissions

were considerably greater than they had been in the previous year, the average number resident showed a decline. It appears that some time since, when the appointment of a resident assistant medical officer was urged upon the guardians, it was suggested that one of the probable results would be a decline in the number of residents through the cases being cured more rapidly. The medical officer in the present report is able to point out the apparent realisation of this probability. Fears have been at times entertained that the development of the Workhouse Infirmary system would tend to encourage and increase the amount of pauperism, and that the infirmary might become the portal to the workhouse. So long, however, as the admission to the infirmary is subjected to proper supervision and classification, a well-conducted and thoroughly efficient Workhouse Infirmary ought to have an opposite effect upon pauperism. Bearing in mind the large amount of pauperism due to ill-health, any system which secures the most skilful treatment of the poor in sickness must tend to reduce pauperism. In the Shoreditch Infirmary the cases of illness admitted from the Workhouse are treated in a different block from that to which out-door cases are directly admitted. This useful classification prevents habitual paupers from being associated with those who are only temporarily pauperised by sickness. Dr. Forbes urges the great desirability of establishing Convalescent Homes in connexion with the Metropolitan Workhouse Infirmaries, which, in affording incalculable benefit to discharged patients, would frequently establish recoveries, which otherwise become relapses. Without attaching too much importance to the crude mortality statistics of such an institution as a Workhouse Infirmary, it is worth noting that the recorded completed cases in the Shoreditch Infirmary during the year were 1896, of which 303, or nearly 16 per cent., were deaths, and 1593, or 84 per cent., recoveries. In the absence of other similar statistics with which to compare the Shoreditch figures, we will not venture to offer an opinion upon the rate of mortality that prevailed. It is evident, however, that when 16 per cent. of the cases admitted prove fatal, the proportion of serious cases constantly under treatment must be large indeed; and we know that the average number of all cases under treatment during the year was 447. It would be useful to know what is the medical and nursing strength of an institution with so heavy a charge. With regard to the 303 deaths in this institution, we are told that 21 were of infants under three years of age; 7 were of children aged from three to twenty; 135 of adults aged between twenty and sixty; and 140 were of persons aged upwards of sixty years. No less than 189 of the deaths were attributed to diseases of the respiratory organs. It is satisfactory to learn that although 67 deliveries occurred during the year in the lying-in wards, no death followed parturition, and no case of puerperal fever occurred in the wards. Some interesting statistics are given of the cost of maintenance of patients, from which it appears that it averaged about 5*s.* 3*d.* per week, made up of 4*s.* 7*d.* for food, stimulants, and necessaries, 4½*d.* for clothing, and 3½*d.* for drugs. The total cost of maintenance is remarkably low, and affords evidence of strict economy combined with good management. With respect to the cost of drugs not averaging more than 3½*d.* per week, we can only express surprise, having regard to the serious nature of so large a proportion of the cases. We trust, however, that neither the guardians nor the medical officer would sanction a dangerous system of paltry economy in drugs. We are glad to see a dietary table, but the efficiency of the diet depends so much upon what is ordered and dispensed as "extras," that it would be useless to discuss it seriously. It is noted that the paid-nursing system continues to work satisfactorily. During the severely cold and foggy weather of last winter it was found necessary to burn gas constantly in order to keep up the temperature of the wards. Dr. Forbes reports that the rate of mortality was not excessive during that period, and attributes this fact to warmth of temperature maintained in the wards, and to the free use of stimulants. The cost of stimulants (beer, wine, and spirits), nevertheless, during the year was not more than 5*d.* per head per week. Dr. Forbes' figures are full of interest, and we hope that other Workhouse Infirmaries will follow the example set by the Shoreditch Infirmary.

HOSPITAL REGISTRATION.

WE are glad to learn that an effort is about to be made to inquire into the various systems of registration in vogue in the different metropolitan hospitals. The subject was raised in these columns a few months ago by Mr. Howlett, and the commencement of a new medical year affords a favourable opportunity for renewed consideration of the subject. The present movement has been set on foot mainly by that gentleman, who has received assurances of support from the several hospital registrars. We are informed that a meeting will be held on Wednesday next, the 6th instant, at 8 P.M., at King's College Hospital, to consider the question; when it is hoped that many of those who have formerly held the office of registrar, and who may naturally be expected to take an interest in the matter, will attend, and that some definite action will be taken with a view to secure the introduction of a uniform plan to be adopted at all the hospitals.

PARASITICAL HÆMOPTYSIS.

JAPAN presents, apparently, a fruitful field to the pathologist. We lately chronicled the discovery of a new form of endemic fever by Professor Baelz of Tokio, and now, from the same observer, comes a description of a new form of hæmoptysis, of parasitical origin, the symptom of a disease which Baelz proposes to call "gregarinosis pulmonum." The disease is not only undescribed, but it is apparently unknown even to the native practitioners. Its chief symptom is hæmoptysis. Individuals, who are otherwise healthy, cough up bloody sputa, either continuously or at intervals, for many years. The hæmorrhage has no apparent connexion with phthisis or any other discoverable lung affection. Beyond the cough and expectoration, no morbid symptom, objective or subjective, is to be detected, even after the disease has lasted ten years. The affection appears to be a common one, for Baelz has already met with nineteen cases, twelve in the last year, and it is probable that thousands of Japanese suffer from it. All the cases hitherto seen have been in men, and for the most part between the ages of fifteen and twenty-five years. It is met with throughout the whole of Japan, but seems to be somewhat more frequent in the south. The sputa have a characteristic dirty-red aspect, and are thin. The red colour depends solely upon blood. A specific parasite is always to be found in it. This is met with in two forms: (1) as yellowish-brown, ovoid bodies of ·13 mm. long, and ·07 mm. wide. They have a double contour from a translucent wall ·02 mm. thick, which, in different positions, appears greenish or reddish, and at the larger end is a kind of cover, at which the cyst opens. The contents consist of delicate jelly-like material, in which are embedded three or five aggregations of smaller bodies. The latter consist (*a*) of spherules about twice the size of a white blood-corpuscle, colourless, with sharp outlines. Around these spherules, and more or less enclosing them, is (*b*) a coarsely granular material, scattered through the jelly, and in it molecular movements may often be seen. When the spherules have left the cyst, they show for a time the same movements, and then become invested with the granular substance, and become motionless. The larger ovoid bodies are clearly

psorosperm cysts, and the young spherules seem to be psorosperms similar to those which Waldenburg and Eimer have found in the intestine and liver of the mouse and rabbit. Since these and other observers have ascertained that the bodies we call psorosperms are only a stage in the development of gregarinæ, Baelz proposes to call the disease gregarinosis pulmonum, and the parasite gregarina pulmonum, or, from its colour, gregarina fusca. No opportunity has apparently occurred for investigating the pathological anatomy of the disease.

PRISON DIETARY.

IN the recently issued second report of the Irish Prisons' Board which was established in 1877 under the provisions of the new Prisons Act, reference is made to the substitution of the English dietary for that formerly in use in Irish prisons. The medical officers do not, it appears, approve of the alteration, and have requested the Executive to submit the entire question to a competent medical commission. We learn with satisfaction, that since the report has been issued the Irish Government have agreed to the proposal and have appointed Dr. Robert McDonnell, Dr. MacCabe, Local Government Board Inspector, and Dr. Grimshaw, Registrar-General for Ireland, to carry out an inquiry into the present prison diet. We pointed out some time since, with regard to the new dietaries, that strong doubts existed as to their physiological sufficiency; and that the urban criminal accustomed to a liberal diet, and generally better housed than his rural brother in crime, finds prison life, as at present regulated, a severe strain on his vital powers, so that should there be any weak spot in his constitution, he breaks down under the pressure. We await with considerable interest the report of Drs. McDonnell, MacCabe, and Grimshaw, gentlemen thoroughly competent to carry out the investigation required in a satisfactory manner.

THE POPULATION OF THE EARTH.

NO stronger evidence of the world-wide influence of civilisation could be well urged than the possibility of the preparation of such approximately trustworthy statistics of the earth's population as are contained in the sixth issue of Boehm and Wagner's valuable publication, "Die Bevolkerung der Erde." The necessity for trustworthy vital statistics is gradually being acknowledged throughout the known world, and the area embraced by periodical census enumerations, as shown in a prefatory essay by Herr Nessman of Hamburg, is being constantly and rapidly extended. The joint authors of this valuable compilation, Boehm and Wagner, calculate and show the population of the world to be very nearly 1456 millions of persons, and nearly 17 millions more than it was at the time of the last issue of their publication nineteen months ago. It seems rather startling at first sight to hear that the population of the earth is increasing at the rate of nearly a million persons per month, but a little consideration shows that this is quite possible, since the rate of increase of population in most countries, of which we have trustworthy statistics, exceeds 1 per cent. per annum. Asia is said to contain considerably more than half the population of the globe, or 835 millions, Europe 316 millions, Africa 206 millions, America 95 millions, and Australia and Polynesia 4 millions. Bearing in mind the different areas of the continents, it is evident that America will long be able to absorb, to the advantage of itself and of all other nations, the surplus population of the rest of the world, even if it should exceed 12 millions per annum. In Europe the editors of this work naturally experienced the greatest difficulty in arriving at approximate figures for Russia and Turkey. The population of the Russian empire is given as 88 millions, of which 66 millions reside in Europe and 12 millions in Asia. The Turkish empire is credited with 25 millions of population, including nearly 9 millions in Europe and rather more than 16 millions in Asia. There is admittedly much doubt as to the approximate accuracy of the estimate of the population of the Chinese empire at nearly 435 millions. The grounds upon which the population of the British possessions in India is estimated at 240 millions are far more worthy of trust; this will, however, be further tested at the census of the British empire next year. There can be no doubt of the increasing value and accuracy of succeeding editions of the "Die Bevolkerung der Erde," and if the information is not in all instances above suspicion, it may be readily admitted that no better standard on this large subject is available.

SUDDEN DEATH IN TYPHOID FEVER.

THE occurrence of sudden death in typhoid fever, without any hæmorrhage or perforation to explain it, has been variously accounted for. According to Dieulafoy it is always due to syncope, a reflex result of the intestinal lesion. But the accident has been met with after the intestinal ulceration has cicatrised, and also in typhus, in which there is no ulceration of the intestine. Hayem has ascribed it to organic changes in the heart, degeneration of the muscular fibres, but in some cases described the heart has been found to be healthy. Laveran attributed it to cerebral anæmia, and Huchard to a combination of this with cardiac degeneration. M. A. Marvaud has re-examined the question in the light of some cases which occurred last winter at Algiers. In this epidemic, thoracic complications were especially frequent. Twenty-two cases died out of ninety treated at one hospital, and in ten of these the heart presented ante-mortem clots. In four of these ten cases death was sudden; in three there was slow asphyxia with collapse, and in one death was preceded by free intestinal hæmorrhage. In the four cases of sudden death this occurred while the patients were making an effort. M. Marvaud believes that the pulmonary complications may have assisted in the production of the intra-cardiac coagula—first, by the mechanical obstruction to the circulation; and, secondly, by increasing the tendency of the blood to coagulate. In some cases death is instantaneous, and probably in these the intra-cardiac coagula interfere with the action of the valves, or plug the pulmonary artery. In other cases death follows asphyxial symptoms—quick breathing, anxiety, oppression, cyanosis, chilling of the extremities, small pulse, and collapse.

WOOLWICH AND SANDHURST.

THE annual reports of the Board of Visitors appointed by the Secretary of State for War to inspect the Royal Military Academy, Woolwich, and the Royal Military College, Sandhurst, have just been issued. Under the heading "Sanitary" the Visitors report that at Woolwich "the health of the students continues to be good," and at Sandhurst "the general health of the cadets for the past twelve months has been very good." But the documents appended to the reports do not bear out this favourable opinion. At Woolwich the course of instruction is divided into two terms, each comprising about 132 days, the intermediate periods constituting the vacations. The admissions into hospital during the year amounted to 218 in an establishment of cadets fixed at 195. These numbers give the *annual* proportion of admissions as 1545 per 1000, or not much less than double that occurring among troops in the United Kingdom. This certainly cannot be deemed satisfactory, and considering that the cadets are all young men who before joining have been examined by a Medical Board, and certified "to be free from bodily defects or ailments, and in all respects as to height and physical qualities fit for Her Majesty's Service," there would seem to have been either an unusual preva-

lence of disease, or a great laxity in the admissions into hospital, admitting of what would be considered malingering if it occurred among soldiers. The return for Sandhurst includes only the period from the middle of November to the beginning of July; deducting a month for Christmas and Easter vacations, there remain about 200 days of residence. The admissions amounted to 156 from an establishment of 300 cadets; they were therefore in the annual proportion of 951 per 1000, or considerably above that of the troops, but much under the proportion among the cadets at Woolwich. In both establishments the admissions for accidents, sustained chiefly at out-door games, and especially football, amounted to between one-fifth and one-fourth of the whole. The great excess at Woolwich occurred chiefly in measles, and in abscesses, ulcers, and boils, the cases of the latter group having been forty-two at Woolwich and only six at Sandhurst. A few years ago, in consequence of the prevalence of fever at Sandhurst, a careful examination was made of the sanitary condition of the college, and, if we remember rightly, the whole basement was found to be burrowed with cesspits. These were abolished, and the college thoroughly sewered. We are not aware of the state of the Woolwich Academy in this respect, but the large number of cases of abscesses, ulcers, and boils would suggest the necessity of an inquiry into this matter. The admissions into hospital, exclusive of those from accidents and injuries, occurring in the proportion of 1213 per 1000 in a body of healthy young men between the ages of sixteen and twenty, appear to call for an examination into the sanitary condition of the academy and its general management so far as that bears upon the health of the inmates.

THE CORTICAL CENTRE FOR MOVEMENTS OF THE FACE.

IN a recent issue of the *Progrès Médical*, M. Ballet records a case at La Salpétrière confirmatory of the views of Charcot and Pitres as to the centre for the movements of the facial muscles being seated in the lower third of the parietal and ascending frontal convolutions. It is certainly very rare to meet with cases of facial paralysis arising from limited central lesions. The patient in this case was a woman seventy-one years of age, who for some time had been the subject of senile tremors. She was admitted into hospital with well-marked left facial paralysis, but with no impairment of motility of the limbs beyond a very slight degree of weakness in the left arm. Sensibility was unaffected. During the same day there appeared conjugate deviation of the eyes to the right, and the face became more strongly drawn to this side. The following day coma supervened, the eyes and head being strongly deviated to the right, and death took place three days later. Post-mortem examination showed a recent clot weighing five grammes in the cortex of the right cerebral hemisphere, occupying the lower part of the ascending frontal convolution and bounding the fissure of Sylvius. On section it was found to have destroyed the inferior frontal fasciculus, and to have encroached upon the corresponding parietal fasciculus, without, however, reaching deeply enough to involve the central grey nuclei. M. Ballet remarks that few cases hitherto published so clearly establish the seat of the psycho-motor centre of the face, the majority of such cases being those of facial paralysis associated with brachial monoplegia, with lesions extending beyond the limit assigned to the face centre. In this case, however, the hæmorrhage and surrounding softening were limited almost entirely to the lower third of the ascending frontal gyrus, and had led to a facial "monoplegia" of the opposite side. The paresis of the arm, which increased slightly as the case advanced, was probably due to a slight extension of the hæmorrhage, and to the pressure produced by this lesion upon the centre for the upper limb, which is in close contiguity to the facial centre.

COLOUR-BLINDNESS AND RAILWAY EMPLOYÉS.

WITH reference to the responsibility of railway authorities in the matter of guarding against colour-blindness among persons employed in moving railway trains, we are informed by the medical officer of one of the largest Indian railways that every European, Eurasian, or native who is appointed to out-door work on the open line has to pass not only a general medical examination, but a special examination with regard to his eyesight. This rule has been in existence for more than ten years, and consists of testing the ability of the candidate to distinguish many shades of colour by day, and coloured lamps by night. It is somewhat remarkable to hear that among the large number of employés appointed and examined during the past twelve years, only one European has been rejected for colour-blindness, whereas natives constantly fail to pass the test, many of them being afflicted with nyctalopia. This rare occurrence of colour-blindness among Europeans in India is in singular contrast to recent evidence of its prevalence in Europe.

IRREGULARITIES AT THE SMALL-POX HOSPITAL, KILMAINHAM.

DR. MACCABE, an Inspector under the Local Government Board for Ireland, on Monday last resumed an inquiry into certain charges brought against the management of this hospital. The charges were made by a former patient, named Lavery, who was admitted last May suffering from small-pox, and discharged cured on the 4th July. When leaving he expressed his thanks to the officials for the kindness he had received; but shortly afterwards complained to the guardians of the South Dublin Union relative to certain irregularities which existed at the hospital. Lavery asserted that in June he saw a wardsman take from the hospital five shirts belonging to patients, which he pawned for drink; also that another wardsman drank some brandy ordered for a dying patient and substituted water. He also accused the attendants of purloining the bread and meat, and disposing of them for their own advantage. These were very serious charges, but they were corroborated by another patient; and further, one of the attendants, a pauper inmate, acknowledged that it was a practice in the hospital for patients to give half their allowance of stimulants to the wardsmen for looking after them; and that he had known articles of clothing belonging to the patients to be pawned by the attendants. The inquiry has been adjourned, but sufficient evidence has been given to show that there is great room for reform in the management of the hospital.

A RATTLESNAKE BITE.

AN extraordinary account of recovery from a rattlesnake bite has been published in *Land and Water*, by Dr. Arthur Stradling, of H.M.S *Elbe*, who has apparently been making some experiments, no doubt well intended, but most unwisely ordered, in the endeavour to discover an antidote. He had arranged for the snake—a small Crotalus horridus, about eighteen inches long—to bite his right arm above the wrist, and he grasped the creature with his left hand, protected by a thick leather glove. The snake, however, managed to wriggle through his fingers, and bit him on the back of the left forearm, leaving one of its fangs sticking in the wound. Putting it back in the box, he picked out the bit of fang with a pair of forceps and sat down to watch the result! This was at one o'clock in the morning. He had ligatures, ammonia, brandy, and nitric acid at hand in readiness; but the value of the caustic and ligature could not

be great, since he waited for the symptoms of absorption before applying them. He went on waiting for four hours, until 5 A.M. Then he noticed that the lymphatics higher up the arm were swollen and inflamed, and almost at the same moment he became aware of light-headedness, and of a burning sensation traversing his whole frame. There seemed to be great vascular and mental excitement, yet his temperature was down to 96°. After this evidence of absorption he applied the nitric acid to the bite, but almost immediately became irresistibly drowsy, and then unconscious. At 11 A.M., ten hours after the bite, he was found insensible, pale, pupils contracted, feet and legs cold, but with an axillary temperature of nearly 100°; the intercostal muscles, arms, and legs were paralysed; the diaphragmatic respiration was irregular. A medical man on board sucked the bites and cauterised them freely, and gave ether and ammonia every half hour. There was no movement of the body until three in the afternoon, when a tetanic spasm occurred, followed by hiccough and twitching of the muscles about the shoulders. The experimenter then recovered consciousness, slowly regained power over the limbs, and slept for twelve hours. After this he was well, except for prostration. It is hardly possible to conceive an experiment made under more reckless conditions—an experiment with a rattlesnake in solitude, in the middle of the night, and by an observer apparently ignorant of the rapidity with which the action of the poison, once set up, develops. The result teaches nothing new, and it is difficult to understand what, under the circumstances, could be learned from it.

DEATH FROM CHLOROFORM.

WE have to regret another case of death from chloroform inhalation. It took place at the West London Hospital on September 21st. The case was one of epulis of the upper jaw, and the anæsthetic was being carefully administered by Mr. Johnston, the house-physician. The patient had just come under the influence of the anæsthetic when the heart's action suddenly became arrested. The tongue was drawn forward, and artificial respiration, galvanism to the carotid region, and the hypodermic injection of atropine were had recourse to; but the efforts to restore animation, although energetically carried out, proved unavailing.

PERINEPHRITIS IN CHILDREN.

A VERY interesting paper on this subject has been published by Dr. V. P. Gibney, of the Hospital for the Ruptured and Crippled, New York. The paper contains a clinical record of fifteen cases, in addition to a previously published series of thirteen cases, which have appeared in various American journals, by the same author. The present paper is a reprint from the *Chicago Medical Journal and Examiner*. All the cases recovered perfectly, except one in which slight lameness remained. Dr. Gibney maintains that more than ninety per cent. of cases reported as cases of hip disease and cured without lameness or deformity never have been cases of hip disease at all, but cases of perinephritis, perityphlitis, periarthritis, primary traumatic periostitis, of various neuroses of the hip, of subacute rheumatism about the hip, or of acute primary synovitis of the hip; all of which are insignificant as compared with true hip disease, which is chronic and slowly progressive. The clinical pictures in the fifteen cases are very clear, involving generally the following symptoms—rigor, fever, lancinating pains in the lumbar region, constipation, spasm of the psoas muscle, the gait like that of hip disease, and swelling in the ilio-costal space when the pain becomes excruciating. The thigh can be flexed and rotated, but not fully extended without pain; generally the thigh is found flexed. The disease may terminate either in resolution or suppuration. In sixteen cases there was suppuration, in twelve there was not. The average duration of the disease was three and a half months. In nineteen no exciting cause could be found; in eight a contusion, a strain, or a fall, and in one a nephritis seemed the starting-point. The age of the patients was from one to fifteen years. The chief treatment was rest, fomentations, and early evacuation of pus. The paper is an excellent specimen of clinical and discriminating work. That one medical man should encounter twenty-eight cases is enough to induce medical men to be careful and hopeful in their examination of acute maladies like those affecting the hip-joint.

THE Science College in Birmingham, founded by Sir Josiah Mason, is to be opened to-day (Friday). By its foundation deed the institution is established to provide instruction in mathematics, physics, chemistry, the natural sciences, especially geology and mineralogy, botany and zoology, physiology, with special reference to the laws of health, and the English, French, and German languages. The scheme is also sufficiently elastic to admit of instruction being given in such other branches of knowledge as may properly be included in the term "science," mere literary education being excluded. The course of instruction is designed to prepare students for the degrees of B.Sc. and D.Sc. in the London University.

AT the Quarterly Court of the President and Managers of the Royal Infirmary, Aberdeen, recently held, it was resolved that it be remitted to the Committee of Management to consider and report, after consultation with the medical staff, first, as to the expediency of appointing as resident assistant to the hospital medical staff only such as possess a degree or diploma, or have passed all the examinations for the same; second, as to any changes in the existing regulations of the Infirmary which they would recommend to be made for this purpose. Such report to be submitted to the quarterly meeting of managers.

BY the death of Dr. Wilms, surgeon-general, of Berlin, in his fifty-eighth year, surgery has suffered a great loss. The immediate cause of the lamentable event appears at present somewhat doubtful, it having, on the one hand, been attributed to septic poisoning contracted during the performance of an operation about three months ago, and on the other to the bursting of a bloodvessel; in either case, however, the comparatively early death of the distinguished surgeon must be regarded as another illustration of the perils which environ the practice of the healing art.

MR. G. S. V. WILLS, principal of the Westminster College of Pharmacy, at the opening of the session of the College a few days since, expressed the opinion that the only remedy for the "co-operative society" evil in connexion with dispensing would be the introduction of a new Pharmacy Act. He believes this will be forthcoming before long.

A CORONER'S JURY, at an inquest on a woman found dead on the steps of the Poplar workhouse, expressed their opinion that there was gross neglect on the part of the workhouse authorities, and that no pauper inmate should be employed as night watchman.

THE Hospital Saturday movement has been commenced at Gainsborough, and the first collection has resulted in the creditable sum of £95 4*s.* 5*d.*, £60 of which has been paid to the Lincoln County Hospital, and £30 to the Leeds Infirmary.

THE Earl of Carnarvon, having consulted Dr. Grabham of Madeira, during a visit which that well-known physician has recently paid to this country, has determined to spend the winter in the island.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. Giles' District, London (population, 1871, 53,429).—Mr. Lovett's report for 1879 has its chief interest for the evidence it affords of the increasing efficiency of the control exercised by the District Board of Works, and of the supervision maintained by the medical officer of health over this district of central London—a district of which the almost incredible difficulties of sanitary administration rest even more with the character of much of its population than with the unwholesome courts and alleys in which the mass of its more destitute inhabitants are housed. In 1879 St. Giles had a death-rate (22·5 per 1000 population) below the general death-rate of the metropolis (23·3); and with regard to several principal zymotic diseases, the prevalence of which in earlier days formed a deplorable characteristic of the district, the rate of mortality was 2·4 per 1000, as compared with 3·2 in London generally.

The most interesting part of Mr. Lovett's report for the particular year is an account given of an outbreak of true typhus. The disease had been absent from the district since the year 1874, when in the summer and autumn of 1879 it appeared again. The malady showed itself in its *old haunts* in the district, haunts which, happily for the district, have now been swept entirely away by clearances of unhealthy areas effected by the Metropolitan Board of Works under the Artisans' Dwellings Act, 1875. There were two groups of cases, one beginning in August, the other in October, both more or less connected with the autumn movement of hop-pickers. The cases as described by Mr. Lovett present many points of interest with reference to sanitary administration. The reappearance of the disease in its old accustomed haunts—haunts hideously characteristic of the worst form of dwellings of the metropolitan poor and migratory labouring classes, and now swept away. Would that all similar localities could be dealt with in like fashion in the metropolis and elsewhere! The close relation between the groups of cases and the hop-pickers' migration indicates that we want to know much more than we yet know of the conditions under which hop-picking is carried out in the south-eastern counties. It is highly probable, from Mr. Lovett's story, that *typhus* existed among the hop-pickers of Cobham in October, 1879. The difficulty of dealing with cases of infectious disease, in view of arresting the spread, among migratory people such as the hop-pickers, is most instructively illustrated by these cases. We read of one case of typhus conducted by a brother to Gravesend, and placed there in a train and sent to London. Shortly after the brother himself is seized. He is sent in a fly to Gravesend, then proceeds by train to London, and makes his way to St. Thomas's Hospital, where he died of the fever.

Pembroke Urban Sanitary District (estimated population, 15,000).—Dr. Protheroe Saer reports a lower mortality in this district during 1879 than had occurred in any of the several years that the Public Health Act has been in force. The death-rate was 16·79 per 1000 of the estimated population, and the birth-rate 32·8. Diseases of the heart and blood-vessels stood first in order among the causes of death; phthisis pulmonalis second; bronchitis, pneumonia, and pleurisy third, and infantile convulsions fourth. Dr. Saer discusses, with a view of showing to what extent these causes of death may have been influenced in their incidence by local conditions of unwholesomeness which are removable, and it is obvious these are not wanting in Pembroke. He comments also, in regard to infantile convulsions, on the absence of due care in the nursing of infants too commonly observed. The mortality from the chief zymotic diseases was very low in Pembroke during 1879, the total number of deaths being only 15, as compared with an annual average of 58 during the five preceding years. Dr. Saer attributes this marked decline in the mortality from these diseases to the measures adopted for their prevention from time to time by the Sanitary Authority. We shall be glad if this prove to be the case, for there appears to be still much to be done in the way of sanitary amendment in Pembroke, and we shall hope, the Sanitary Authority continuing its efforts, to find even greater declension in the mortality from these diseases, and corresponding falling off in the general mortality and in the sickness of the place. Indeed, Dr. Saer looks forward (somewhat prematurely, we think) to a possible immunity from the diseases in question when certain measures of drainage and water-supply which have been determined upon by the Sanitary Authority are carried out. But pending these greater measures there is evidently much detailed work to be done in Pembroke with regard to nuisances. Indeed, the impression left on our mind by the report is that the Sanitary Authority is negligent in the performance of its duties as to nuisance prevention, which if not efficiently carried out may frustrate the best schemes of water-supply and drainage, so far as the public health is concerned. At least so we interpret the references to nuisances in this report, which have been reported more than once by the medical officer of health.

THE METROPOLITAN WATER-SUPPLY.

Lieut.-Col. Bolton's report on the state of the metropolitan water-supply for August shows that the water of the Thames at the various intakes of the companies was bad from the 1st to the 3rd of the month, when it became pure, and continued so to the 31st. The water in the river Lea was also good during the greater part of the month. The water of the Thames, however, although good, was slightly coloured by organic matter, principally arising from vegetation brought down by the flood-waters in the early part of the month. Filtration failed to free the water from the colour referred to, but it is stated to have been generally efficient, so far as freedom from turbidity is concerned. Dr. Frankland's report states that the water delivered by the water companies from the Thames was of "very bad quality," and "quite unfit for dietetic purposes, owing to the large quantity of organic matter which it contained." The water from the Lea, "though efficiently filtered, was no better than Thames water"; but the deep-well water "was of its usual excellent quality for dietetic purposes," and that sent out by the Colne Valley Company was also excellent.

A SANITARY SPASM: EDMONTON.

Last week we had to record proceedings of the Edmonton Local Board against a builder for using improper materials for mortar, the bye-laws of the Board notwithstanding. This week we are glad to have to record further proceedings of this Board against builders for infringement of their bye-laws. Two firms were summoned before the magistrates, and in both cases fined the full penalty, for having disregarded the bye-laws of the Board with reference to the foundations of certain houses. The Local Board wished to withdraw the cases on a promise of amendment, but the magistrates very properly would not allow this. It is not easy to understand how this unusual activity of the Edmonton Local Board has been brought about. Edmonton would have escaped a heavy penalty in badly-constructed buildings if this activity had been displayed some time ago, when there was quite as great need for it as now. But better late than never; and let us hope that this is not a mere passing spasm. With everything in its favour, by the negligence of the Local Board, Edmonton has now for several years been given up as a prey to cheap builders.

THE SEWERAGE OF KANTURK.

The Local Government Board for Ireland have recently been in communication with the Kanturk Board of Guardians with reference to the sewerage of this town, their attention having been directed to the matter by information received from one of the residents. Their correspondent stated that a sewer coming from the workhouse discharged its contents in the centre of the town, and that it was a nuisance dangerous and abominable, containing for the most part the filth from a hospital in which typhus fever of a malignant type is at present raging. Also that the water in the river, which is contaminated by the sewage, is used by people in the vicinity for washing and other domestic purposes, and that some bakers use it in the process of preparing their bread. The river, however, has several other sewers passing into it, one being from a public cemetery, and mostly all discharging into the river invariably at the nearest available point. Further, that the entire sewerage is bad, and that the inhabitants have not been compelled to

make efficient connecting-drains between their houses and the main sewers. This was a strong indictment against the guardians as the sanitary authority; but we regret to find that they admitted all the statements made, and evaded the difficulty by requesting the Local Government Board to send down their engineering inspector to report on the present system of sewerage of Kanturk.

POLLUTION OF THE THAMES.

The Corporation of Windsor were summoned before the Petty Sessions held in that town last week by the Conservators of the Thames for passing into the river sewage imperfectly purified. The Corporation effects the purification of the sewage of the town by Professor Hillé's process, but at the particular time submitted to the consideration of the Court it was held that the effluent from the purification works conveyed to the river was not such as to render it fit for mingling with the stream; and the Court fined the Corporation £5, allowing £5 5s. as costs. We are glad to note this indication of activity on the part of the Thames Conservators in carrying into effect their powers for securing greater freedom from pollution of the river.

SLAUGHTER-HOUSES AND COW-SHEDS IN THE METROPOLIS.

The Kensington Vestry have printed two reports—one by Dr. Dudfield of an inspection of the licensed slaughter-houses in their district, another by Mr. Wm. Boutcher, the chairman of the General Purposes Committee of the Vestry—of an inspection by the Committee of the licensed cow-sheds. In both inspections defects and negligences were discovered which indicate that the disseverance of the sanitary administration of slaughter-houses and cow-sheds from the ordinary sanitary administration of a district is much to be regretted. The imposition of this duty upon the Metropolitan Board of Works does not seem to secure either efficiency or certainty in its performance, and complicates the sanitary administration of a district.

At a meeting of the Widnes Local Board the chairman, referring to the prevalence of fatal diarrhœa among young children in the district, made the following statement:—"The habits of the people were such that he really did not feel much surprised at the extent of such disease. In cases where fruit and vegetables had been ordered to be destroyed, and had been thrown into the ashpits at the back of shops by the occupiers, no sooner had they been emptied than shoals of children descended upon the places, and ate both the vegetables and fruit with avidity; and not only so, but offal which they picked out of such places."

The chairman does not appear to have understood that this statement convicted the Local Board of the grossest negligence with reference to the removal and deposit of refuse.

Dr. Blaxall, of the Local Government Board, met the Sanitary Authority of Newtown, Montgomeryshire, a few days ago, and conferred with them on the measures to be taken to arrest the spread of scarlet fever, of which a serious outbreak has occurred in the district.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Notwithstanding the recent moderate temperature, the rate of urban mortality declines but slowly. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 5204 births and 3466 deaths were registered last week. The births exceeded by 69 and the deaths by 191 the average weekly numbers during 1879. The deaths, however, showed a further decline of 75 from recent weekly numbers, and were equal to an annual rate of 24·1 per 1000, against 25·4 and 25·0 in the two preceding weeks. The lowest death-rates in the twenty towns last week were 20·5 in London, 21·6 in Plymouth, 21·7 in Oldham, and 21·8 in Birmingham. The rates in the other towns ranged upwards to 32·9 in Liverpool, 35·3 in Sunderland, 35·9 in Hull, and 37·7 in Norwich. The high rates in these four last-mentioned towns were mainly due to excessive zymotic fatality. During the twelve weeks ending last Saturday, the death-rate in these twenty towns averaged 23·4 per 1000, against 24·0 and 18·3 in the corresponding periods of 1878 and 1879.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 1190 and 1009 in the two preceding weeks, further declined to 9·2 last week; of these, 611 resulted from diarrhœa, 119 from scarlet fever, and 72 from other forms of fever, principally enteric. The annual death-rate from these seven diseases averaged 6·3 per 1000 in the twenty towns; it ranged from 3·5 and 3·7 in Plymouth and London, to 12·6 and 17·0 in Salford and Norwich. Diarrhœa fatality showed a further general decline last week; the annual death-rate from this disease did not exceed 2·0 in London, while it averaged 6·4 in the nineteen provincial towns. Among the nineteen towns, the diarrhœa death-rate ranged from 3·5, both in Portsmouth and Plymouth, to 8·9 in Salford and 9·8 in Hull. Scarlet fever showed the largest proportional fatality in Norwich, Sunderland, and Bristol. Enteric fever showed a generally increased fatality last week, and exceeded that which prevailed in any previous week this year; the highest death-rate from this disease occurred in Norwich, Salford, Portsmouth, and Leeds. Small-pox caused five more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 104 and 116 at the end of the two preceding weeks, declined again to 105 on Saturday last; 6 new cases of small-pox were admitted to these hospitals during the week, against 7, 13, and 27 in the three previous weeks. The Highgate Small-pox Hospital contained 7 patients on Saturday last.

The deaths referred to diseases of the respiratory organs in London, which had been 124 and 153 in the two preceding weeks, further rose to 174 last week, but were 4 below the corrected weekly average; 107 resulted from bronchitis and 41 from pneumonia. The annual death-rate from lung diseases was equal to 2·5 per 1000 in London, against 3·9 in Liverpool.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate last week averaged 18·9 per 1000, against 18·2 and 20·3 in the two preceding weeks; this rate was no less than 5·2 per 1000 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 11·7 and 18·1 in Perth and Dundee, to 23·1 and 24·4 in Leith and Paisley. The fatal cases of the seven principal zymotic diseases in the eight towns were 153, against 129 and 163 in the two preceding weeks; they included 53 from diarrhœa, 45 from scarlet fever, 23 from diphtheria, 16 from whooping-cough, 9 from fever (principally enteric), 7 from measles, and not one from small-pox. The annual death-rate from these seven diseases averaged 6·2 per 1000 in the eight towns, and was almost identical with the rate from the same diseases, 6·3, in the twenty English towns. The zymotic death-rate in the Scotch towns last week ranged from 0·0 and 2·1 in Perth and Paisley, to 6·7 and 8·9 in Glasgow and Leith. The fatal cases of diarrhœa in the eight towns, which had been 63 and 69 in the two previous weeks, declined to 53 last week, and were equal to an annual rate of 2·1 per 1000, while in the twenty English towns the diarrhœa death-rate averaged no less than 4·2. The largest proportional fatality from diarrhœa in the Scotch towns occurred last week in Dundee and Leith. The deaths from scarlet fever in the eight towns, which had been 18, 22, and 36 in the three previous weeks, further rose last week to 45, of which 25 occurred in Glasgow, 16 in Edinburgh (against 8 and 15 in the two previous weeks), and 3 in Leith. The largest proportional fatality of scarlet fever last week was recorded in Edinburgh and Leith. The 9 deaths referred to fever showed a marked decline from the number in the previous week, and included 6 in Glasgow. The 23 deaths from diphtheria considerably exceeded the numbers in recent weeks; 11 were returned in Glasgow, 7 in Dundee, and 4 in Edinburgh. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) were 68 in the eight towns last week, against 65 and 61 in the two preceding weeks; the annual death-rate from these diseases was equal to 2·7 per 1000 in the eight towns, against 2·2 in London.

HEALTH OF DUBLIN.

The excessive mortality in Dublin showed but a slight decline last week. The annual death-rate in the city, which had been equal to 34·7 and 39·3 in the two preceding weeks,

was again equal to 38·5 last week. During the past twelve weeks of the current quarter the death-rate in the city has averaged no less than 34·5 per 1000, against 20·5 in London and 20·8 in Edinburgh. The 232 deaths in Dublin last week included 71, or nearly 31 per cent., which were referred to the seven principal zymotic diseases, showing a decline of seven from the number returned in the previous week; 44 resulted from diarrhœa, 14 from scarlatina, 5 from whooping-cough, 4 from measles, 2 from small-pox, and 2 from fever. The annual death-rate from these diseases was equal to 11·8 per 1000 in Dublin, whereas it did not exceed 3·7 in London and 6·6 in Edinburgh. The 44 fatal cases of diarrhœa in Dublin exceeded the number returned in any previous week of this year, and were equal to an annual rate of 7·3 per 1000, while the death-rate from diarrhœa in London did not exceed 2·0. The deaths from scarlet fever showed a considerable increase upon those returned in the two previous weeks; while those from measles, whooping-cough, and fever were less numerous. The proportion of infant mortality continues to show a marked excess in Dublin.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE EXETER CONGRESS.

The Congress of the Sanitary Institute at Exeter may be regarded as, perhaps, the most successful of the several congresses in which that youthful body has indulged. In the principal addresses delivered, the President (Earl Fortescue) avoided the mistake of bringing matters home to the feelings of the Congress and of Exeter people by devoting his attention to matters of sanitary history and the municipal government of London. Mr. Rawlinson, C.B., went wide afield for illustrations of sanitary progress and stagnation, but made amends by giving us three useful degrees of sanitary comparison, teaching us that Belgravia is bad, Whitehall is worse, and Somerset House worst of all. This should be interesting to architectural students wishful to penetrate the mysteries of construction in its sanitary aspects. Dr. B. W. Richardson startled the Congress with a brand-new view of woman as *the* sanitary teacher and administrator, "because it was an office which man could never perform"; but, alas! in the classical example he held up for imitation (the wife of Ischomachus the Jew), it appeared that she was instructed by her husband. He failed to reconcile the difficulty, that if man could not perform, how could he teach? Professor de Chaumont discoursed on the signification which the Institute attached to the term "preventive" or "public medicine," and capped the story of the wife of Ischomachus with the more familiar stories of Hygeia and of Minerva as deities of health.

THE UNHEALTHINESS OF PUBLIC INSTITUTIONS.

Mr. Henry C. Burdett read a further paper at the Exeter Congress on the unhealthiness of public institutions, illustrating his subject by three examples of comparatively new buildings, a hospital, a convalescent institution, and a lunatic asylum. In each of these cases the greatest ignorance had been displayed by the architects in the sanitary arrangements of the several buildings, and soon after their occupation this was made obvious by the manifestations of disease among the inmates, and costly reconstructions had to be entered upon. Mr. Burdett suggested a deputation from the Congress to the Local Government Board on the subject. But he had previously said, and his statement was confirmed by Mr. Robert Rawlinson, that that Board is itself a victim in its own office of the evils he denounced. If the Local Government Board is unable to protect itself and its officers against architectural blunders, how will it be able to protect others?

MORTUARIES.

Mr. Burdett communicated also to the Congress a very instructive paper on Mortuaries in their public-health aspects. This paper gave an excellent summary of the question in this country, both historically and legislatively; and contained in an appendix a statement of the existing public-health provision, so to speak, of mortuaries, both in the metropolis and the provinces. Mr. Burdett made several valuable suggestions to meet the difficulty of providing a mortuary where the local authority is unwilling to act.

SANITARY PROTECTION.

A Sanitary Protection Association has been established in Newport, Rhode Island, on the basis of the Society started in Edinburgh by the advocacy of Professor Fleaming Jenkins, and having for its object the mutual sanitary insurance of its members. It seeks also, after the fashion of the Tottenham Sanitary Association, to incite the municipal authorities to give greater regard than they appear yet to have given to the general sanitary welfare of the place. The Association proposes to provide its members, at moderate cost, with such advice and supervision as shall insure the proper sanitary condition of their own dwellings; to enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested; and to aid in improving the sanitary condition, and consequent good repute of the city, by following such course as, in the opinion of the Council, may seem calculated to promote this object. A novel feature of the operation of the Association is that one of its members has placed at its disposal one hundred dollars, half of which is offered as a prize to the person, not the owner of the house occupied, who shall put his or her premises in the most satisfactory condition by Jan. 1st next, and keep them so until June 1st; and half to the house-owner who shall do the most between Sept. 1st, 1880, and June 1st, 1881, towards improving the sanitary condition of any occupied dwelling.

DIPHTHERIA IN RUSSIA.

It is reported from Poltava that the measure which has been found most efficacious in arresting the spread of diphtheria has been the disinfection of infected houses with burning sulphur. But the peasants, supported by the priests, object to this process. They regard the measure as impious and contrary to the rites of religion. Moreover, they hold it to be foolish. They can understand treating the patient medically, but not the house. "Cure the sick if you like," say they, "but what have our houses to do with the sickness?" Again, they are apathetic as to the deaths of children. "Many die," some exclaim, "but see how many more are left." The peasantry in some places have resisted the intrusion of a "disinfector," and in one village they seized upon a sister of charity, who was with difficulty saved by the intervention of the police from being burnt alive, a fire having already been kindled for the purpose.

The dearth in Samara has been followed by diphtheria, which is reported to have spread widely in the province.

YELLOW FEVER.

The 22nd September was given up to rejoicings in Memphis because the city had escaped this summer from the ravages of yellow fever. Triumphal arches were raised, and the civic societies and trades marched through the chief streets, forming a procession three miles in length, large crowds assembling to witness it and take part in the general gladness. The governors of Kentucky, Tennessee, and Arkansas were also present. Although the form which the public rejoicing assumed may appear somewhat strange to the English reader, it is impossible not to sympathise with it and the feeling from which it sprang.

HOW DISEASES ARE SPREAD.

Two men, patients at Kilmainham Small-pox Hospital, were summoned at the instance of the South Dublin Union Guardians last week for having left the hospital for an entire day while in the convalescent stage of the disease, and fined in the mitigated penalty of forty shillings each.

At a public meeting held on the 13th of September, at Westgate-on-Sea, a committee was appointed, to be called the "Westgate-on-Sea Sanitary Association," for the sanitary protection of the visitors and inhabitants of this rising health-resort. Professor Erasmus Wilson, F.R.S., was appointed chairman; Mr. W. Orchardson, R.A., vice-chairman; and Mr. Arthur Flint, L.R.C.P., hon. sec. and treasurer.

The want of a public mortuary in Mile-end New Town was painfully manifest last week, when a coroner's jury, on proceeding to "view," found the body lying in a small squalid room, in which were sleeping three persons, who had to be roused to enable the "twelve" to discharge their inspectorial function.

It is proposed to build a new water conduit in New York, whereby the supply will be augmented from 100,000,000 gallons per day to 250,000,000 gallons. The estimated cost is 10,000,000 dollars.

A committee has been appointed by the Holborn Board of Guardians to inspect the disused Small-pox Hospital at Hampstead, with a view to acquiring the building for workhouse purposes generally.

THE GENERAL BOARD OF HEALTH, EGYPT.

THE General Board of Health, Egypt, is a body of which we rarely hear in this country except when, by the imposition of quarantine restrictions on ships in Egyptian ports or passing through the Suez Canal, it excites the ire of English shipmasters and shipping firms. The Board consists of two divisions, one of which concerns itself with the internal sanitary arrangements and service of Egypt; the other, known as the International Sanitary Council, controls those sanitary arrangements, such as the administration of quarantine, which affect other countries in their relationship with Egypt. On this Council sit delegates of all the Powers which have representatives at the Khedive's Court. A similar council forms part also of the General Board of Health of the Ottoman Empire, and the Egyptian Board is believed to have been constituted after the pattern of the Turkish Board. There is some obscurity about the functions of these councils. It is believed that when first established the duties of the several delegates was simply to watch the material interests of their respective countries as liable to be affected by the action of the General Board, particularly in the imposition of quarantine upon their shipping and the crews trading to one country or the other, both ships and crews being at this time regarded as extra-territorial. But be this as it may, the international councils of the two boards appear to have acquired or assumed functions very different from those presumed to have originally attached to them, and the Egyptian Board at least, according to our contemporary the *Egyptian Gazette*, is regarded locally as a body constituted "to prevent the spreading, through Egypt, of epidemics to Europe from the East." We have heard something of this sort before, and have a suspicion that the notion, if not originated, took form at the International Sanitary Congress of 1866, when the Egyptian General Board of Health was regarded as the advanced sanitary post for protecting Europe from the invasion of cholera by way of the Red Sea route and the Holy Land of Mahommedanism—the Hedjaz. At any rate, France, Italy, Greece, and other maritime countries of Europe partial to quarantine, seem to hold the view of the functions of the Egyptian International Sanitary Council expressed by the *Egyptian Gazette*, and, so far as those functions relate to quarantine, that view may be colourable. But even as regards quarantine, it would appear that the practice of the Council falls miserably short of its assumed or professed international functions. For our contemporary, representing English opinion in Alexandria, and in reality in Egypt generally, does not hesitate to affirm that the quarantine maintained under the Council's authority is more injurious to the persons quarantined than beneficent to Egypt or to Europe at large. In fact, it is averred that such danger as Europe has to guard against from disease travelling by way of Egypt is a danger not to be controlled by measures of quarantine, but depending upon the generally insanitary state of the country; and our chances of protecting ourselves from this danger must be proportionate to the extent we can influence the Egyptian Government to adopt measures of internal sanitary reform. It would seem that the foreign delegates of the International Council have not hesitated to interest themselves in the internal sanitary arrangements of Egypt, but our contemporary urges that they and the Council, as a Council, should have a voice in them. It may recommend, but has no power or means to enforce its recommendations being carried into effect. "Till the International Sanitary Council has a thoroughly effective control over the whole of the hygienic arrangements in Egypt," says our contemporary, "we cannot hope for any reasonable security against the ravages of an epidemic, and Europe has no protection whatever against the importation of disease through Egypt." In other words, the International Council should be merged in the General Board of Health, the board acting as a whole in all sanitary matters, whether home or international.

Underlying this suggestion is the distrust of the efficiency of any sanitary measures which may be adopted in Egypt except these are controlled by Europeans. This is an old story. France has particularly urged the necessity of all the important administrative posts in the quarantine service being filled by Europeans, if the quarantine service is to be properly performed. The *Egyptian Gazette* sees a like necessity in the general sanitary administration of the country. The question of merging the International Sanitary Council in the General Board of Health is a diplomatic one; but the appointment of efficient officers rests with the Egyptian Government. This has not shown itself unwilling to take advantage of skilled medical European talent; and it has among the native medical practitioners men who have been trained in European schools, and who have the highest qualifications. It may be questioned whether these men are in number sufficient to fill all the administrative sanitary posts which it is desirable should be filled by individuals possessing high qualifications, and it would no doubt be well to supplement them by high-class men of other than native origin. To what extent this may be a matter in which foreign governments think themselves called upon in the interest of Egypt, of Europe, or of the European residents in Egypt, to advise the Egyptian Government, we do not pretend to say, but we have no doubt that a larger importation of European skill, medical and other, in the sanitary administration of Egypt, and the admission of the delegates of foreign representatives to the councils of the General Board of Health on the general sanitary administration of the country, would be of immeasurable benefit to Egypt, and so far as the sanitary state of that country concerns the Continent, to Europe also.

Correspondence.

"Audi alteram partem."

THE IMMEDIATE TREATMENT OF STRICTURE OF THE URETHRA.

To the Editor of THE LANCET.

SIR,—In your journal of Sept. 18th Mr. Holt states that he has not replied to my criticisms on his operation, as he considers I am "perfectly incompetent to form any opinion as to the value of the operation and its results," my experience being limited to a few cases. When I mention that I was *for five years* attached to the Westminster Hospital as Demonstrator of, and afterwards Lecturer on, Anatomy, and that I witnessed the operations performed by Mr. Holt and his colleagues, I am afraid your readers will not accept Mr. Holt's explanation. Mr. Holt and his colleagues certainly convinced me, in the most unequivocal way, that the operation was *not* "free from every danger," as stated by Mr. Holt in his book. We do not as yet know how many deaths have occurred after the operation, as only a few have been published; but on looking over a list I have of fatal cases of Mr. Holt's operation, I find I have credited Westminster Hospital with five deaths, only one of which, I believe, ever appeared in print—a fact which I commend to Mr. Lane's notice. When Mr. Wood stated that he had seen two fatal cases at King's College Hospital under Mr. Partridge, he forgot to mention that Mr. Henry Smith had had a death, and Sir Wm. Fergusson one also, I believe; at all events, that eminent surgeon abandoned the operation on account of its *fatal results*. The operation was tried in Paris, and discarded on account of the deaths and unsatisfactory results which followed it. In America Gross, Otis, Mastin, and others, have abandoned it in favour of internal urethrotomy, for reasons which they have stated. In this country Sir H. Thompson, Mr. Wood, Mr. Croft, Mr. B. Hill, Mr. Annandale, Mr. Coulson, Mr. F. Jordan, and Mr. Lund all practise internal urethrotomy in preference to the so-called immediate treatment, which they have given up. In London the operation is now only performed in some three hospitals out of fourteen. It is only

suitable for *selected cases*, as proved by its advocates, who excuse it for killing a man if he had "false passages" or "albuminous urine." Holt's operation is fatal if there be renal disease, in proof whereof I need only refer to the case of a man "with a dropsical affection," who, for urgent reasons, was submitted to it by Dr. Lyster. Internal urethrotomy, on the contrary, is not barred by such complications, as proved by a patient of Mr. Symes', of Briton Ferry, upon whom I performed it, who was suffering from a desperate traumatic stricture, œdema of the legs and scrotum, and albuminous urine. The man wrote to me not long ago to say that he was well, at work, and able to pass his instrument. As regards the *permanent results* of each operation, I can state, from a personal examination of patients, in hospital and private practice, years after they had been operated on by Sir H. Thompson, Mr. Holt, Mr. B. Hill, Mr. Heath, and the late Mr. J. D. Hill, that the tough, irregular, often non-dilatable cicatrices following Mr. Holt's operation, contrasted very unfavourably with the soft, supple, dilatable splices inserted by Sir H. Thompson by means of internal urethrotomy. I have to thank Mr. Christopher Heath for kindly proving that, even in his able hands, the rate of mortality following Mr. Holt's operation *was more than double* that of internal urethrotomy as practised by his colleagues.

I remain, Sir, yours, &c.,

Portman-square, Sept. 28th, 1880. W. F. TEEVAN.

To the Editor of THE LANCET.

SIR,—I had been looking forward for some reply to the criticisms made upon Mr. Barnard Holt's method of treating stricture of the urethra, and have, therefore, read with pleasure the letters from Mr. Holt and others in THE LANCET of September 18th and 25th.

My own personal experience of the operation has hitherto been very favourable, though not extensive, but I was led to adopt it by the praises I heard bestowed upon it by two such good practical surgeons as the late Mr. De Morgan and the late Mr. Maunder, whose estimate of the operation may have interest and value for many of your readers. Anyone who knew Mr. De Morgan well must remember how difficult it was to get a decided opinion from him, and how well matured his judgment was on subjects upon which he expressed himself unhesitatingly. Upon the splitting operation of Mr. B. Holt I heard Mr. De Morgan on more than one occasion speak in the highest terms, and he used to say that he had never known any serious danger arise from it. Mr. Maunder, too, thought most favourably of the operation and practised it frequently and successfully.

To the condition of the urethra which may obtain many years after the operation the following case testifies:—A gentleman, lately home from India, who admits to having lived a fast life, and tried himself in many ways, is now under my care for hydrocele. He tells me that eleven years ago he was operated upon by Mr. Barnard Holt, and that for eight months afterwards he continued to pass a large-sized bougie at intervals. From that time till the present he has never passed any instrument at all, and when asked if he had since had any contraction of his stream, or other sign of returning stricture, he replied in a surprised tone, "No! I was quite cured eleven years ago, and have had nothing whatever the matter with my water since."

Such a result may be equalled possibly, but cannot be surpassed, by any method of internal urethrotomy.

I am, Sir, yours, &c.,

HENRY MORRIS.

Mansfield-street, Portland-place, W., Sept. 28th, 1880.

To the Editor of THE LANCET.

SIR,—In the correspondence in your columns relative to the comparative value of the splitting operation for stricture *versus* the internal cutting operation, it is to be noticed that the surgeons who are in favour of Mr. Holt's plan of treatment say very little or nothing of their experience with the urethrotome. In your last issue Mr. James Lane states that he has "never practised it." Mr. Heath is silent on this point, and Mr. Macnamara confines himself to a statement of a few difficult cases and a general praise of the operation.

These remarks in favour of Mr. Holt's operation have, no doubt, been called forth by the ungenerous and unfair criticism of some gentlemen who, as Mr. Lane has shown, must know nothing either of the practice of the operation, its after-treatment, or effect.

The question is not, is Mr. Holt's operation a safe one or a serviceable one, but rather, is it the best treatment by operation? This cannot be decided by the statements of gentlemen who have only experience of the one or the other, but not of both.

Now, the splitting operation is one method, Mr. Holt's, and stands by itself. On the other hand, by the term urethrotomy many operations are included, some of them differing altogether from others, both in utility and method of procedure. I can well understand surgeons getting satisfied with Mr. Holt's operation and remaining there until time has proved one form of urethrotomy superior to all others.

I have seen Holt's dilator used in very many instances, both in this country and in Paris, where M. Dolbeau used it frequently; indeed, in 1872 I never saw him employ any other method. The only fault that can be found with this operation is that, as I have seen, a very obstinate discharge results, defying all treatment. I think this has also occurred in Mr. Lane's practice, and I recollect Mr. Juler telling me of a similar case or cases. One very bad case of stricture resulted from an attempt to forcibly dilate; but here the operation seems to have been badly performed and abandoned. My experience differs from that of Mr. Heath, inasmuch as I have found that strictures forcibly dilated and then neglected by the patient, as so many are, after they are divided, resist gradual dilatation with soft instruments far more than those operated on by internal urethrotomy; the former resembling a traumatic stricture; the latter, having a cicatrix or cicatricial splice in one place only, is much more amenable to treatment.

Such accidents as the instrument passing into a false passage, and then used, as related by Mr. Heath, causing two deaths, half of the whole number quoted, could not have occurred by the use of Mr. Teevan's urethrotome, unless the precautions enjoined by that surgeon be wilfully neglected.

I have seen various urethrotomes used, but none give such results as that devised by Mr. Teevan, while the risk is almost nil. Many and many times I have witnessed the operation by this instrument, and have also used it myself in some dozen cases; but I never saw any complication arise but once, and that was hæmorrhage, soon checked. In this case there was too great haste used, and too little precaution. However, the case did well, and twelve months afterwards he was passing a No. 20 French size. If this urethrotome be passed, and urine is seen to flow along it, it is quite impossible for any sacrifice of life to occur from cutting or splitting false passages. Without doubt, Mr. Holt's operation is of great value, and far superior to all the old, and the majority of the new, urethrotomies; but until the surgeon has had a full trial of Mr. Teevan's instrument he should not decide that Mr. Holt's operation is the best for the patient.

I am, Sir, your obedient servant,

HORACE MANDERS, F.R.C.S.,
Late House-surgeon, St. Mary's Hospital and St. Peter's Hospital, &c.

Yorktown, Surrey, Sept. 29th, 1880.

TREATMENT OF HÆMOPHILIA.

To the Editor of THE LANCET.

SIR,—The interesting history of a fatal case of hæmophilia, under the care of Dr. Thorowgood, in the West London Hospital, related in your impression of Sept. 4th, has prompted me to give some particulars of a case of successful treatment in a severe attack of this distressing complaint I witnessed some years back; as the facts impressed themselves on my memory, I am the better able to dispense with the omission of notes taken at the time, which I unfortunately neglected. It was in a patient of Mr. Sloman's, of Farnham, whom I was assisting at the time.

A stout, healthy lady, between fifty and sixty years of age, was suddenly attacked in bed at night with profuse bleeding from the nose. I was sent for, and the patient, whose indomitable pluck and steady coolness under a full knowledge of the danger she was incurring, contributed

much to the fortunate issue, told me that a brother had died in a few days from uncontrollable bleeding following some very trivial skin wound, and that an aunt had frequently suffered from copious bleeding consequent on very inadequate exciting causes.

The patient was treated in the routine manner—astringents syringed into the nasal fossæ, ice, iron, and ammonia internally, and finally plugging the nares; but all to no purpose. The bleeding, if it ceased for a time, soon came on with redoubled energy; the patient at intervals vomited quantities of dark blood.

I was with the patient two nights, who, notwithstanding the increasing pallor, anæmia, and weakness, preserved her spirits wonderfully. After forty-eight hours of this continuous bleeding, it was evident that unless the hæmorrhage could be stayed death would speedily ensue, and as a last resource in a sort of empirical way we determined to try the effect of diminishing the blood-pressure by opening a vein in the arm. The state of the patient, while it nerved us to adopt any probable means of staying the flow, made recourse to this particular remedy without previous experience an anxious proceeding. Mr. Sloman opened a vein in the bend of the left arm with some difficulty, owing partly to its small size, and partly to the presence of much superficial fat. The nasal bleeding stopped as soon as a little dark blood had flowed away. After making sure that no further loss was taking place, the vein was closed. The hæmorrhage did not return, and from thence forward the patient made a protracted, but perfect, recovery.

In two other cases which I can call to mind—a gentleman of thirty and a girl of seventeen years, both with well-marked hæmorrhagic diathesis, and with hereditary history of the complaint—I have tried venesection, and in both cases success has been immediate and complete. Erichsen advises the application of continuous cold to the bleeding surface, if possible, combined with pressure, and mentions several cases where this plan has been successfully tried. Next to the constant loss the locality whence it comes is most important, and as it generally proceeds from sources difficult of application of mechanical pressure, in the majority of the cases one hears of, the remedies, internal and otherwise, used seem perfectly valueless, and the patients, if they recover, do so in spite of the means to help them. I have a family of which two members, females, are bleeders. In one of these patients a slight attack from nose and mouth passed off after twelve hours or so; but in the event of an attack lasting longer, or being very serious from the amount of loss or condition of the patient, if the bleeding surface was difficult to reach, I would open a vein at once, and would trust to this measure alone locally, but if compression could be used I would try this means first, with the addition of hot water, at a temperature of 50° or 60° C., to the bleeding surface, as has been found so useful in uterine hæmorrhage. May there not be a connexion between the hæmorrhagic diathesis and marsh miasm? In all the cases I have been able to investigate either the parents or the patients themselves have lived for some long time in an aguish district, or have had ague themselves. Perhaps some of your readers could throw light on the matter.

I am, Sir, yours very truly,

Colchester, Sept. 4th, 1880. HENRY FINCH.

ENTERIC FEVER IN INDIA.

To the Editor of THE LANCET.

SIR,—All those who aim at precision in diagnosis must be thankful to Dr. Ranking (*vide* THE LANCET, July 31st) for his opposition to the idea that enteric fever in India is only a form of malarial fever. It is reasonable to suppose that a tropical climate may to a certain extent modify the course of the disease, but it cannot do away with its essential characteristics, either clinical or pathological. In India there *may* frequently be some difficulty in distinguishing between remittent malarial fever and enteric fever. There *is* difficulty in Europe in diagnosing some obscure tubercular cases from enteric fever. On this account, however, no physician in Europe classes enteric fever as a mere form of tuberculosis. A very great obstacle to the exact differentiation of enteric fever in India is the disregard of systematic and repeated temperature-taking. A person is said in a lax way to be suffering from "fever;" and if diaphoretics and quinine fail to restore the patient, opprobrious epithets such as "malignant" are applied to the fever, and finally the thermometer is brought into very vigorous use. The course of the affection having been neglected in its beginning, routine thermometrical observations are taken when the time for diagnosing has long passed away and that for guessing has arrived.

Dr. Ranking goes on to say that natives suffer more from enteric fever than Europeans, or at least more than those Europeans who take proper sanitary precautions. As I do not know what Dr. Ranking's data are, I do not for a moment mean to dispute his statement, but as the subject is such an important one, I feel in duty bound to say that my experience does not make for a like conclusion. I have had considerable experience among the villagers in the Deccan; and as the medical arrangements in several of the Famine Relief Camps in the Maratha country were under my supervision, I had daily opportunities for observation. One camp, which may serve as a specimen of the rest, had on an average four thousand inmates. These people were of both sexes, all ages, and represented the usual castes met with in the Deccan, with the exception of Brahmans and Parsees. The adults suffered from extreme debility or actual disease. Many of the children were healthy orphans. There was a large staff of natives in good health, performing menial offices in the camp, and living under the same circumstances as the sick and feeble. The overcrowding was unavoidably very great; even in health the majority of the people would have been dirty in their habits, and when admitted for famine relief weakness and disease had made them too apathetic to attempt to observe the merest appearance of decency, far less cleanliness. The camp was in use for a year, and consequently the ground was thoroughly impregnated with organic matter. The drinking water was neither filtered nor boiled. No case of enteric fever was diagnosed during life. More than two hundred post-mortem examinations were made by myself on persons of both sexes and all ages. The first hundred bodies were selected as those of people who had died from gastro-enteric affections. The appearances of enteric fever were never found. On the contrary, an atrophy of Peyer's patches seemed to be a usual result of long privation. The people, in short, were placed in the most favourable circumstances for imbibing enteric poison, and yet the specific fever was wanting. Analogous observations were made on the absence of certain diseases that would probably have occurred in Europe under like circumstances. Ulcerative and gangrenous stomatitis were of frequent occurrence, in fact, almost endemic, but no case of diphtheria was observed. Though many autopsies were made of the bodies of persons who had died with sores of long standing, no case of amyloid kidney was seen. Most of the people had suffered for two or three years from want of proper food, clothing, and shelter, and yet phthisis was almost entirely absent. I do not wish to be understood to imply that enteric fever does not occur among natives. I merely wish to indicate that my experience tends to make me think that it is not frequent.

I should add that I have had many opportunities in Scotland of studying the disease both clinically and pathologically.

I am, Sir, yours, &c.,

E. D. MACKELLAR, M.B. Glasg.

Poona, Sept. 2nd, 1880.

EFFECTS OF THE INHALATION OF PURE NITROGEN GAS.

To the Editor of THE LANCET.

SIR,—On August 16th I was called by a coastguardsman to come at once to Mr. Fleuss, who had been walking under water at Fishbourne Creek, and had met with an accident. On arrival I found the patient in bed, wrapped in blankets; surface cold; temperature in axilla 96°; pulse 100, small and weak; heart sounds normal but weak; left lung normal; right lung slightly dull on percussion, and fine crepitation heard all over. I was shown a quantity of blood which he had spat up, and whilst I was in the room he spat up about an ounce of bright arterial blood; later, frothy and mixed with mucus. The conjunctiva of both eyes was intensely injected, and round about the eyes and lids purpuric, ecchymosed spots appeared. Was quite sensible and clear; no headache or nausea; no symptom of carbonic-acid poisoning.

History of the accident.—The apparatus with which Mr. Fleuss was experimenting on this occasion was not his patent diving-dress, but was a new invention for the purpose of entering smoke or mines. Mr. Fleuss proved by his having remained under water for nearly three-quarters of an hour that this dress could be equally adapted for going under water where protection from cold is not necessary. I have Mr. Fleuss's permission to describe the apparatus, which is patented. It consists of a cylinder containing oxygen under pressure, a bag into which the oxygen escapes, a purifier containing caustic soda to filter the expired air of its CO_2, and a tight-fitting respirator or mask covering mouth, nose, and ears, with glass covers for the eyes. This mask is attached to the purifier by two valved pipes, one an expiring pipe and the other an inhaling pipe. The expired air passes through the filter, is robbed of its CO_2, it then mixes in the bag with oxygen, and is ready to be reinhaled. Mr. Fleuss had been under water for some time, had walked across the bed of the river from one side to the other, and had turned to walk back again. He says he wished to try the experiment of using up all the oxygen in the bag before introducing a fresh supply, instead of allowing the flow of oxygen to be constant (as is the rule in using either this or the diving apparatus). Thinking he would have ample warning of the diminution of the oxygen, and of when it would become necessary to introduce a fresh supply, he turned off the oxygen at the cylinder. All this time the expired air was passing through the caustic soda. Having proceeded under water about half-way across the river, without warning and without any feeling of oppression, giddiness, nausea, or any other symptom, he suddenly lost consciousness, and not answering the signal communicated by the line, was immediately brought to the surface by his friends, who were accompanying him in a boat. What had occurred was as follows:—At the moment the oxygen was turned off the bag contained one-sixth of a cubic foot of the mixture of exhaled breath, with its complement of added oxygen. This mixture was rebreathed, and again passed through the filter until all the oxygen was used up, at which moment the next inhalation was one of pure nitrogen gas, with the effects described.

Mr. Fleuss informs me that in experimenting on himself he can tell in a moment if CO_2 has passed the filter; if this occurs he turns on more oxygen, which so far dilutes the poison as to cure the feeling of CO_2 inhalation, and gives ample time to get to the surface. It would seem that as long as any oxygen is present the excess of nitrogen is not felt, nor is any warning given of the need of a further supply; but the instant all the oxygen is used, or the proportion of oxygen falls below a certain point, the next inhalation causes such excessive arterial tension as to produce immediate loss of consciousness, and even rupture of loosely-supported capillaries. Dr. Richard Neale, in advocating in THE LANCET of Aug. 28th the purification of vitiated air in confined spaces by means of a "chemical lung," points out a modification and further application of Mr. Fleuss's patent, which is already in successful operation.

Your obedient servant,

Ryde, Isle of Wight, Sept. 1880. CHANNING NEILL, M.D.

CHIAN TURPENTINE.

To the Editor of THE LANCET.

SIR,—Having received the following account of Chian turpentine, and the probable supply of it this year, from Mons. D. Spadavo, French consul at Chio, I think it may prove interesting to the medical profession, and therefore send it to you for publication. I may add there is now some genuine Chian turpentine of this year's importation offered in the London market, for which a high price is asked:—

"I am happy to give you the information you require relating to Chian turpentine. This drug has not been collected in our island for many years, and I believe that the greatest quantities of Chian turpentine sold as such in England were mere falsifications, or another kind substituted for it. Chio may possess about a thousand turpentine trees, some exceedingly old—up to eight or nine hundred years, and varying from half a yard to ten or twelve yards in circumference. These trees when well cultivated may give from two to three kilogrammes of turpentine [a year?]

"The turpentine is collected by incisions made in the trunk of the tree about April, and which are renewed every year.

"The fruit of this tree, when ripe, is collected and pressed in the same way as they do olives; it gives a magnificent oil, very much liked by the inhabitants, and often employed instead of butter. As soon as the fruit begins to get ripe the flow of the turpentine ceases; this happens about the middle of August.

"This year the inhabitants have been surprised to receive orders for the collection of turpentine, as it has been asked for in England and bought at the rate of six shillings the oke (or 1600 grammes). The island has not produced over 700 or 800 kilogrammes this year, as many have not been informed in time to incise the tree.

"Owing to its cheapness the possessors of these trees do not give themselves too much trouble in collecting it clear, and they let it flow on the sand, which is taken with it. We have not the means to get it cleared, and are obliged to send it as it is collected."

I am, Sir, yours, &c.,

New Cavendish-street, Sept. 29th, 1880. WM. MARTINDALE.

CONIUM IN CANCER.

To the Editor of THE LANCET.

SIR,—Permit me to draw the attention of yourself and readers to what is to me, at least, a new experience.

About a month ago I amputated at our infirmary a very large scirrhous breast in the first stage of ulceration. The extensive wound which was left open (as I have always done of late years) was dressed with a weak solution of carbolic acid on lint; this was continued for a week. The patient had many symptoms of uterine cancer, and had much vaginal discharge, with pain. At the end of a week, having procured a supply of fresh extract of conium, I put her under three doses a day of fifteen grains each. Within twenty-four hours of beginning the drug the nurse observed that the lint dressing on removal was of a bright-green colour—in fact, the colour of the mixture the patient was taking. Thinking it might be connected with the carbolic-acid dressing, we discontinued it, and dressed the wound with lint and water only. The dressings came away coloured as before, and have continued so up to the present. The wound is closing very rapidly, the colour of lint now partaking of a yellow or apple green. During the first few days a piece of lint moistened with the mixture, and compared with the lint removed from the wound, was scarcely distinguishable from the latter, except by the pus. The secretions are unaffected in colour or in any way. I may add that the vaginal discharge has ceased, and the uterine pain and symptoms have all but disappeared. Be this the result of the full doses of conium or not, I feel inclined to give this drug a full and fair trial in all cases which may in future come under my care, in both internal and external disease, in full doses; procuring, of course, fresh extract.—I am, Sir, yours faithfully,

Chelmsford, Sept. 20th, 1880. JAMES NICHOLLS, F.R.C.S.

*** As may be ascertained on reference to Pereira's Materia Medica, the use of conium, as a reputed remedy for tumours and cancers, is as old as anything in therapeutics. Pliny says "it reduces all tumours." Avicenna extolled its use for tumours of the breast and testicle. Storck and others recommended it for cancer as far back as 1762. Bayle recorded forty-six cases of cancerous disease cured, and twenty-eight ameliorated by hemlock. There is, therefore, no novelty in the treatment, but many years ago it was common, but unhappily unsuccessful.—ED. L.

THE SERVICES.

WAR OFFICE.—Surgeon W. Maunsell Collins, M.D., from the Scots Guards, to be Surgeon in the Royal Horse Guards, vice H. F. L. Melladew, M.D., promoted; Brigade-Surgeon Joseph Coleman Hornsby Wright, M.D., has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Chamney Graves Irwin, M.B., from half-pay, to be Surgeon-Major.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon Michael W. Cowan to the Royal Marine Division at Portsmouth; Staff Surgeon Charles L. Ridout to

the *Tourmaline*; Staff Surgeon Septimus Lexton to the *Duncan*, for temporary service. Fleet Surgeon J. Caldwell to the *Nankin*; Staff Surgeon A. B. Trousdell to the *Duke of Wellington*, for Portsmouth Dockyard; Surgeon A. T. Corrie to the *Flora*; Surgeon W. Thompson to the *Rambler*. Staff Surgeon Henry Hadlow has been promoted to be Fleet Surgeon, with seniority of the 20th ult.

PARIS.

(From our own Correspondent.)

ALTHOUGH the medical journals have not yet taken cognisance, as the lawyers say, of the smells of Paris, the agitation which has been carried on for the last two months in the lay press has already borne useful fruit. The real cause of the nuisance is now known to reside in the *depotoirs* surrounding Paris, and especially in one of these establishments, for transforming the metropolitan nightsoil into chemicals, which is situated in the plain of St. Denis. A writer in the *France*, M. Charles Laurent, speaks of it as follows:—"Everything agrees in pointing out a well-known factory in the plain of St. Denis as the sole origin of the bad smells which infect Paris. This factory collects all that is unearthly from the city, in order to extract chemicals and fat. It diffuses in the neighbourhood such a strong smell of rotten cabbage that even in the coldest weather 'young ladies' (*sic*) who have recently crossed the Channel are seized again with a kind of sea-sickness."

Now that public attention has been forcibly called to the insanitary condition of the town generally, it would be well if some influential organ would protest against the disgraceful condition of several of the Paris hospitals. The Hôpital Laennec, for instance, is very little better than a slaughter-house for incurables. The wards situated upon the ground floor are especially badly kept. Odours which emanate from the closets impregnate the atmosphere, and culminate in an almost insupportable stink. Close to the small dungeon which is used as a speculum-room, a few days since I noticed with surprise on the clothes of a woman some lively specimens of the *Cimex lectularius*, and on expressing my astonishment to one of the pupils, he informed me that the insect has its habitat at Laennec. He furthermore volunteered the statement, which is probably strictly true, that a few months' residence at that institution is sufficient to tuberculise the strongest inmate.

M. Jules Guérin, who, in his public capacity, may be summed up as a scientific obstructionist, does not set a very high value upon M. Pasteur's experiments; and he does not hesitate, moreover, to proclaim his scepticism. At a recent meeting of the Academy of Medicine he promised to show that what is true in the recent communication of M. Bouley is a matter of common knowledge (*court les rues*), and that what is new is absolutely false. If M. Jules Guérin's adverse opinion were not almost sufficient in itself to stamp M. Bouley's discoveries with interest, it might be observed that the epigram he has applied to them is as old as the judgment is unjustifiable.

Those who are passing through Paris at the present moment will do well to visit the Hôpital Laennec. There is now a case of generalised scleroderma, under the care of M. Legroux, which will well repay the trouble.

Obituary.

THE HONOURABLE JOHN IMRAY, M.D.

WE much regret to have to record the death of this distinguished West India practitioner, which occurred in the island of Dominica, on Sunday, the 22nd August last, of dysentery.

Dr. Imray, who was closely connected with Dr. Porteus, one of the most celebrated Bishops of London, was born in the north of Scotland on January 11th, 1811; and he received his medical education in Edinburgh, where, in 1831, he obtained the diploma of the College of Surgeons. He soon afterwards settled in Dominica, in which island his elder brother, Dr. Keith Imray, who was well known in the profession in those days, was then practising. By skill and hard work Dr. Imray soon became the leading physician in Dominica, and he retained this honourable position until a few years ago, when he retired from the active exercise of his profession.

In 1838 he published in the *Edinburgh Medical Journal* an article on Epidemic Yellow Fever, and three years afterwards contributed to the same periodical a long paper entitled, "On the Nature, Causes, and Treatment of Yellow Fever." These articles deservedly attracted considerable attention, and his clear and accurate description of a disease which was then but little understood caused him to be considered an authority on the subject. He was, in fact, the first English practitioner who drew attention to certain important pathological characteristics of this fatal disease, and the learned Dr. Copland frequently quoted him in the article on Yellow Fever in the celebrated "Dictionary of Medicine." It may here be mentioned, as an important fact in the present day, that Dr. Imray's views in regard to the non-contagiousness of yellow fever underwent an entire change, for of late years he was impressed with the idea that the disease occasionally, if not always, manifested contagious properties.

In 1848 he published in the *Edinburgh Medical Journal* an able article on the "Characters of Endemic Fever in the island of Dominica," and subsequently he published several articles in the pages of this journal, his last being on the "Treatment of Tetanus by Opium and Hydrate of Chloral in Combination." In addition to writing these valuable papers, he was the author of the "Memoir on Yaws," published, in 1873, in Dr. Gavin Milroy's "Report on Leprosy and Yaws in the West Indies." This "Memoir," which gives evidence of much learning and deep reading, gained for Dr. Imray the distinction of being held to be the first living authority on frambœsia.

When it is remembered that a medical man, practising in a small island in the tropics, was able to make for himself a reputation as an authority on several diseases, he must be considered to be a man of more than ordinary intellect; but when, in addition to this, such a man is able to carve out for himself a name as an able botanist, to leave his mark as a successful politician, and to be famed throughout the tropical world as the most enterprising and successful agriculturist in the West Indies, he must be held to be remarkable; and, indeed, Dr. Imray was a remarkable man, and one that the profession has need to be proud of.

For nearly half a century he was the friend and correspondent of Sir William Hooker, and his son, the present director of the Royal Gardens at Kew; and many plants have been named in his honour by Lindley, by the Hookers—father and son, and by other botanists. He was also a well-known and able contributor to the pages of the *Gardeners' Chronicle*, the *Technologist*, the *Journal of Applied Science*, and *Nature*.

At the time of the International Exhibition of 1862 his efforts, as chairman of the Dominica Committee, caused the island's show to eclipse far richer colonies; and to him the jurors awarded two medals, one for special services, and the other for his valuable collection of the native woods.

His introduction into Dominica of the cultivation of limes and of the Liberian coffee, whilst enriching himself, helped to bring forward once more the ancient prosperity of the island; and it is already proposed by an admiring public to erect some permanent memorial to one who has proved such a benefactor to the colony.

In the politics of the country Dr. Imray until lately took a prominent part, and as a leading member of the Executive Council, he was the trusted and honoured adviser of all the Governors. As chairman of the Board of Health he, on several occasions, prevented the introduction of contagious diseases from the neighbouring colonies; and the establishment of the Roseau Infirmary, of which institution he was the medical officer for over thirty years, was mainly due to his exertions and monetary aid.

In private as well as in public life he was the type of the English gentleman. Upright and honourable in all his dealings, his word once passed was his bond; and never from the time of his landing in the island to the day of his death was he known to have committed a wrong act. Always of a religious disposition, he was a prominent member of the Anglican Church, and at its disestablishment in the island he subscribed very largely for its maintenance.

His private charities were innumerable, though for the

most part secret, and as a necessary consequence his death was bewailed by the poor throughout the length and breadth of the island.

To his immediate friends—he was unmarried and without relatives in Dominica—his death came as a terrible blow; for his kindly disposition, his flowing wit, and his highly cultivated mind, had raised up in those who had the privilege of his friendship an affection the depth of which was unknown until the good old doctor was no more.

Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 23rd:—

Fowler, Charles Henry, East Kirkby, Lincolnshire.
Hakim, Pherszeshá M., Bombay.
Mody, Nanabhoy C., Bombay.
Perkins, George C. Steele, Exeter.
Wallace, Robert Smith, Arnold, Notts.

The following gentleman also on the same day passed his Primary Professional Examination:—

Cockell, Edward Seaton, Guy's Hospital.

THE Hospital Sunday collections at Yeovil on the 26th ult. amounted to about £105.

THE Convalescent Hospital for the county of Hertford, at St. Leonards-on-Sea, will be opened by the Princess Christian on October 21st.

AT the annual meeting of the Royal Albert Asylum for Idiots and Imbeciles held at Newcastle on Wednesday, Mr. Joseph Cowen, M.P., said that he had ascertained in connexion with an inquiry in which he had been associated, that there was collected in London alone, by voluntary subscriptions, for charitable purposes, nearly £6,000,000 a year. If to this sum were added the amount paid as poor-rates, there would result a total of something like £8,000,000 contributed in the metropolis annually towards the relief of suffering, distress, and poverty.

SUPERANNUATION.—The following Poor-law Medical Officers have received superannuation allowances:—Mr. Arthur J. Nunn, late of the Alderbury Union, £20 per annum; Mr. A. G. Roper, late of the Croydon Union, £100 per annum.

MEDICAL MAGISTRATES.—Dr. Edward Davies, of Wrexham, has been nominated by the Lord Lieutenant as a Magistrate for the county of Denbigh. Dr. Walker, of Brierley Hill, has been placed on the Commission of the Peace for the county of Stafford.

BEQUESTS.—The West Norfolk and Lynn Hospital has received a legacy of £100 from the late Daniel Gurney, Esq., of North Runcton, Lynn. By the will of Mr. Francis Adams, late of Bristol, £250 is bequeathed to the General Hospital and to the Royal Infirmary of that city.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BLAKE, J. F., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Referee on Sanitary Subjects to St. Margaret's and St. John's Ratepayers' Protection Association.

BULLOCK, H., F.R.C.S.E., L.S.A.L., has been reappointed Medical Officer for the Cranford District of the Staines Union.

CALLCOTT, J. T., M.B., has been appointed Deputy Medical Superintendent of the Durham County Asylum.

CLAPP, R., L.R.C.P.L., M.R.C.S.E., has been appointed Assistant Medical Officer to the Barnwood House Hospital for the Insane, vice Warren, resigned.

CREERY, J., M.B., has been appointed House-Surgeon to the Derry County Infirmary.

D'ALTON, P. R., L.R.C.S.I., has been appointed Medical Officer to the Oranmore Dispensary, Galway Union.

EDWARDS, D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Llanbrynmair District of the Machynlleth Union.

ERSON, E. G. L., L.R.C.P.Ed., has been appointed Medical Officer for the Lindley-cum-Quarmby District of the Huddersfield Union, vice Ellerton, resigned.

FERGUSON, H. L., L.R.C.S.I., has been appointed Assistant-Surgeon to the National Eye and Ear Infirmary, Dublin.

GAFFNEY, T., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer to the Keadue District of the Boyle Union.

HANDS, A., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Wednesfield District of the Wolverhampton Union, vice Broom.

HARDY, J. G., L.R.C.P., has been appointed Junior Assistant Medical Officer to the Durham County Asylum.

KIRSOPP, T., M.B., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the York Dispensary, vice Spencer, resigned.

LAYCOCK, G. L., M.B., has been appointed additional Assistant-Physician to the West-end Hospital for Diseases of the Nervous System.

LINE, W. H., M.B., has been appointed Demonstrator of Anatomy at Carmichael College.

MACNAMARA, R., jun., L.K.Q.C.P.I., L.M.R.C.S.I., Anatomical Demonstrator Royal College of Surgeons, Ireland, late House-Surgeon Alnwick Infirmary, and Surgeon 2nd Northumberland Artillery Volunteers, has been appointed Supernumerary Colonial Government Surgeon to the Island of Trinidad, West Indies.

PRIDEAUX, T. E. P., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the First and Second Districts and the Workhouse of the Wellington Union, vice Kidgell, resigned.

PRINGLE, J., M.R.C.S.E., has been appointed Medical Officer for the Holme District of the Howden Union.

RUTHERFORD, R. L., L.K.Q.C.P.I., has been appointed Senior Assistant Medical Officer to the Durham County Asylum.

SMITH, T. O., M.B., B.Ch., has been appointed Medical Officer to the Kinnetty District of the Parsonstown Union, vice Dudley.

SWINSON, G. N., M.R.C.S.E., L.R.C.P.Ed., has been appointed Medical Officer to the Third District of the Royston Union.

TICEHURST, C. S., M.R.C.P.Ed. &c., has been appointed Medical Officer of Health to the Petersfield Rural District for three years, at a salary of £73 10s. per annum, vice T. Moore, F.R.C.S.E., resigned. Also Medical Officer and Public Vaccinator for No. 2 District of the Petersfield Union, and Surgeon to the Petersfield Union Infirmary, vice T. Moore, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARK.—On the 20th ult., at Aston-road, Birmingham, the wife of Ernest Bark, L.R.C.P.L., of a daughter.

CONSTANT.—On the 14th ult., at Ferndale-park, Tunbridge Wells, the wife of Surgeon-Major F. G. Constant, M.D., 12th Bengal Cavalry, of a son.

FLOYD.—On the 14th ult., at Rectory-place, Woolwich, the wife of John Floyd, M.R.C.S.E., of a daughter.

HARRIS.—On the 24th ult., at Cold Harbour-lane, S.E., the wife of Henry Harris, M.R.C.S.E., of a daughter.

MCNAUGHTAN.—On the 29th ult., the wife of Thos. McNaughtan, M.D., of Blackpool, of a daughter.

NAPIER.—On the 28th ult., at 3, Royal-terrace, Crosshill, Glasgow, the wife of Dr. A. Napier, of a son.

THURSTAN.—On the 23rd ult., at The Hollies, Windmill-road, Croydon, the wife of Paget Thurstan, B.A., M.B., of Lombard-street, E.C., of a son.

WEATHERLY.—On the 29th ult., at Portishead, Somerset, the wife of Lionel A. Weatherly, M.D., of a daughter.

WILSON.—On the 22nd ult., at 7, Pleasant-row, Newcastle-on-Tyne, the wife of Adam Wilson, F.R.C.S.Ed., of a son.

MARRIAGES.

ADAMS—WROTH.—On the 23rd ult., at the Parish Church, Begbury, Devon, by the Rector, the Rev. F. Farrer, John Adams, L.R.C.P.L., of Aldersgate-street, E.C., to Ellen Sparrow, eldest daughter of John Wroth, Esq., of Coombe, Begbury, Devon.

BARKER—DELMEGE.—On the 9th ult., at St. Peter's Church, Dublin, Arthur Edward Barker, Esq., F.R.C.S.E., of Harley-street, London, to Emilie Blanche, youngest daughter of Julius Delmege, of Fitz-William-square, Dublin.

BEAUMONT—CLARKE.—On the 25th ult., at St. Saviour's Church, Walthamstow, Essex, Charles G. Beaumont, Esq., M.D., of Shirley, Hants, to Lucie, eldest surviving daughter of the late Seymour Clarke, Esq., of Northcotts, Walthamstow.

BETTS—FITZGERALD.—On the 28th ult., at the Friends' Meeting House, St. Martin's-lane, Westminster, Edward George Betts, M.R.C.S.E., son of John Betts, of Holloway, to Charlotte Mary, eldest daughter of Alexander Fitzgerald, of Millbank-street, Westminster.

HAMILTON—RINGWOOD.—On the 28th ult., at Christ Church, Leeson-park, by the Rev. Henry J. Ringwood, B.A., Curate of Fullamore (brother of the bride), assisted by the Rev. James Hamilton, B.A., Rector of Pomeroy, co. Tyrone (brother of the bridegroom), and the Rev. William Turbill, Rector of Drumcree, Portadown, Archibald Alexander Hamilton, M.B., B.Ch. Univ. Dub., youngest son of the late Thomas Hamilton, Esq., of Grange, Moy, co. Tyrone, to Annie Elizabeth, eldest daughter of the late Rev. H. T. Ringwood, M.A., of Wilson's Hospital, Westmeath.

KEYWORTH—GWYNN.—On the 25th ult., at St. Peter's, Regent-square, George Hawson Keyworth, M.B., of Wem, Shropshire, to Gertrude Mary, only daughter of the late Rev. Thomas Gwynn, M.A., of Great Marlow, Bucks.

DEATHS.

CLEMENT.—On the 20th ult., at his residence, Woodville, Watford, Herts, Augustus Ward Clement, M.R.C.P.L.

HUTCHINSON.—On the 19th ult., at Scarborough, Richard Scholes Hutchinson, M.D., late of Nottingham, aged 77.

TAYLOR.—On the 18th ult., at Naini Tal, India (killed by a landslip), Leonard Taylor, C.S. Assistant Commissioner, fourth son of David Taylor, M.R.C.S.E., of Kennington-park-road, S.E., aged 27.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, September 30th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sep. 24	30·14	N.W.	57	56	79	66	53	..	Foggy
" 25	30·16	W.	62	57	104	71	55	..	Overcast
" 26	30·09	N.W.	64	61	71	67	56	..	Foggy
" 27	30·30	E.	60	59	88	73	58	..	Foggy
" 28	30·48	N.E.	57	56	71	69	54	..	Foggy
" 29	30·50	E.	55	54	75	66	50	..	Foggy
" 30	30·42	E.	56	54	..	59	51	..	Foggy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A STRANGE SUGGESTION.

A DUBLIN newspaper, in recommending the Catholic University Medical School to the favour of medical students, says that it should be given the preference by Roman Catholic parents, not only on account of the security they must feel in having their children conducted through the mysteries of that dangerous study by Roman Catholic masters, but also in consideration of the vast patronage of the Roman Catholic hierarchy and priesthood in the matter of medical appointments in almost every part of Ireland. We are aware that the majority of Poor-law medical appointments in Ireland are decided by the religion of the candidate, and not by the professional merit he may possess. We regret the fact, and deplore also that any journal should strive to induce students of medicine to join an institution by advocating its claims on such questionable grounds. The *Dublin Evening Mail*, in referring to this matter, recommends competitive examinations as the only remedy to prevent the disgraceful touting and the sectarian hugger-mugger which attend the bestowal of Poor-law medical appointments in Ireland. This proposal is worthy of consideration, but at the same time the natural proclivities of the Irish people cannot be altogether ignored.

COATED PILLS.

To the Editor of THE LANCET.

SIR,—For several years I have been in the habit of using coated pills for all general purposes, both in private and very extensive colliery practice, without finding them to differ at all in their action from pills prepared from similar formulæ in my own surgery. Doubtless there are films and films; but if the particular film with which a pill is coated be inert and sufficiently soluble, I think I may venture to say that it is a harmless and elegant innovation, and that nothing but advantage is likely to result from its adoption. Moreover, in many instances I have found that a coated pill recommends itself to those patients one meets with who say, "Oh, I cannot take pills." I have a patient at present under treatment who would shudder at the sight of an ordinary pill, and vomit before it could pass the fauces; but who, when pills are coated, will freely swallow two at once.

Yours truly,

Sept. 27th, 1880. O. U. I.

To the Editor of THE LANCET.

SIR,—My experience (an extensive one) of the use of coated pills has been entirely in their favour. Practitioners, patients, and assistants all praise the "sugar-coated pills." My medical friends speak with equal commendation of those supplied by good firms. The early education of general practitioners is now so altered that I fear some of us do not know good drugs and careful dispensing from their counterfeits. I shall be very happy to give Dr. Milne a list of the formulæ I have found so useful.

Yours truly,

Great Charlotte-street, S.E., Sept. 1880. HENRY WILLSON.

DOCTORS AND DEATH CERTIFICATES.

MR. E. A. CARTAR, coroner, at an inquest held lately in Deptford, was told by the mother of the deceased child that it had been attended by an assistant for convulsions. On applying to the principal for a certificate of death, he said it would cost her 2s. 6d. She said, "Am I to understand that unless I pay 2s. 6d. you will call in the coroner?" He replied, "Certainly." There are some statements which are so incredible that the best way is simply not to believe them, and this is one of them. But it seemed to be credited by the jury. For our part we withhold credence from it till it is admitted or explained by the doctor implicated.

Double Qualification will find most of the information he is in search of in Hardwicke's "Medical Education and Practice."

Mr. Robinson should address his inquiry to the gentleman named.

"LEGALISED QUACKERY AND LOW CHARGES": ANOTHER DEFENCE.

To the Editor of THE LANCET.

SIR,—The letter of your correspondent, L.R.C.P., in yesterday's issue, deserves a more prominent place in your journal. Since we cheap dispensary doctors are accused by your leader writers of (to speak plainly) deliberately defrauding our patients, the type in which a refutation is printed should, on the "Audi alteram partem" system, be at least equally large, and the position in the journal somewhat prominent. I also want to add my testimony, based on two years' exclusive experience, to that of my colleague, "L.R.C.P."

Firstly, I want to point out that there is a possibility of acting honestly to patients, and still to have low charges. I assert that the average price of the drugs in a six-ounce mixture does not exceed 1*d*., even if such drugs as quinine and iodide of potass, morphia, &c., are used. Let any medical man turn to his day-book, and by the aid of the price list of a good druggist compare the money value of 100 consecutive bottles of medicine. I do not believe it would come to more than 8*s*. 4*d*.

Again, let any gentleman really interested in this question go to the out-patient department of a general hospital. Let him there take the letters of fifty medical patients and of fifty surgical patients, and let him cast up the money value of the prescription, and it will not exceed 3½*d*. per pint (or a week's supply). I exclude cod-liver oil, which costs a little over 1*s*. 2*d*. per ounce.

Again, let any gentleman take the published numbers of patients attending at a public dispensary, let him also take the published accounts of money spent on drugs, and he will find that it does not exceed 2*d*. per head per week. It is, therefore, evident that if you charge even so low as 1*s*. per week, there is a gross profit of 9*d*.

My own experience is that at a dispensary where the gross receipts *during the quarter* for January 1st till March 31st of this year exceeded £400, the drug bill was a little over £80, a sum coinciding remarkably with the figures quoted by my colleague "L.R.C.P."

It being now demonstrated that the thing can be *honestly* done, the question is, How is it that these private dispensaries are often disreputably conducted?

The greatest difficulty is to find able men, willing to work, and honest enough to do what is right by the patient at the outset, even in the early days, before the business pays. Moreover, everyone could not do it. What is required is experience *similar* to a hospital physician's, business capacity of no mean order, punctuality, and a little capital to bring it out, and, above all, you must be fond of the work, which is to all intents and purposes that of a physician at a hospital. For, indeed, when the attendance is numerous (at my place of business, I have reason to believe that I see on some days over two hundred people), you get the out-patients' department of the hospital repeated on a small scale, with this important difference, that the medical man is adequately paid for his work. I cannot help thinking that he also takes a greater interest in the individual cases, as each case has a direct money interest for him.

There are many other questions involved. I will, however, not trespass upon your space any more, except in this respect—namely, the question of ethics involved, and I maintain that "what a medical practitioner charges can never be a question of etiquette provided he deals honestly with his patients."

Yours obediently,

Sept. 29th, 1880. M.D. Lond.

Ichabod.—Our correspondent will see that we have gone fully into the question of the grievances of the I.M.D. It appears unnecessary under the circumstances to publish the letter with which he has favoured us.

Provident Dispensary is quite right. The confusion referred to is an inadvertence.

Mr. J. F. Nicholls.—See reply on page 404.

CHESTER WORKHOUSE.

To the Editor of THE LANCET.

SIR,—The attention of the guardians of this union having been called to a paragraph appearing in your publication of the 4th inst., containing certain statements as to the condition of their new workhouse buildings and the drainage, they direct me to inform you that the said statements are utterly untrue.

I am, Sir, your obedient servant,

WM. KEARTLAND,

Chester Union, Chester, Sept. 21st, 1880. Clerk to the Guardians.

PROFESSOR GOLDWIN SMITH ON DOCTORS.

WE call the following from the *San Francisco Western Lancet*:—"At the annual dinner of Trinity Medical School, Toronto, Mr. Goldwin Smith, responding to a toast, spoke of the singular fact that quacks obtain much sympathy from the masses, who regard them as persecuted men of genius. He also said that there was no body of men—and he made no exception—to whom the world owed greater gratitude than it did to physicians. There was no body of men from whom society received so much, and to whom it paid so little. He thought a man setting out in the medical profession must have almost the spirit of a missionary. He must set out for the purpose of doing good, and not for reward. He was the slave who always worked. The lawyer had his vacation. Even the clergyman might leave his little flock for a time in the wilderness and take his holidays. But the medical man had no moment to call his own. He was at the common call at all hours, and he had often to deal with humanity in its most repellant states. But still he reaped a rich reward in doing boundless good, and had the regard of the sick man as his best friend in the very best sense."

G. G. J.'s knowledge of the individual in question appears to be equal to our own. Every registered practitioner is entitled to recover fees, according to his qualification or qualifications.

Mr. Joseph Schleman.—Any of the more sheltered southern suburbs.

CHANGE AS A MENTAL RESTORATIVE.

To the Editor of THE LANCET.

SIR,—I have been reading some articles on this subject by Dr. Granville, and feel inclined to make a suggestion, which may have occurred to some of those who read Dr. Granville's interesting papers.

I quite agree with Dr. Granville that, valuable as change is to many invalids and overworked persons, it is worse than useless for a doctor to tell a patient vaguely that he "requires a change." A month or two at the seaside, or on the Continent, or in a sea voyage, or in India, a run up to the hills, may be the change indicated; but in many cases it requires to be supplemented by a change of occupation, and not by thorough idleness. Most patients can best find out what that change should be, and need not be advised by the medical attendant; others will consult the doctor, or at any rate will thankfully receive any suggestions that he may have to offer.

Dr. Granville's suggestion is a shrewd one, that the family physician should consider what subjects have been especially taken up by other members of the family, past and present, in order to make use of any hereditary tendencies which might be of some practical service. It struck me that there is one subject which must be of immense interest to all patients if properly introduced to their notice, and that is religion. I do not mean that the doctor should become the spiritual adviser of his patient, or "preach" to him. If he does so, he will in most cases disgust his patient, and lose all influence over him. I mean that a doctor might in many cases in which he meets with a patient whose brain has been overworked with business and anxieties connected with the world we live in, or a patient whose brain has lost all its tone, so to speak, by having devoted itself exclusively to amusement until he has not an object of interest left in the world,—in a number of such cases, I say, that a doctor may find sufficient stimulus to the brain in questions which concern another world and another existence. The subject of religious thought is nowadays by no means a narrow one, and must possess considerable interest to everyone who has time to devote to it, and the number of books on the subject well worthy of attention, and written from every stand-point, are very numerous. The class of people to whom one could recommend such study, I fancy, might be easily induced to take it up. The overworked man of business, whose health seems to have been hopelessly lost by his efforts to do his duty, must feel disappointment in this world; but he may be induced to hope that a future world exists, and may be more satisfactory to his nature. The wealthy young man, who at last discovers that amusement when indulged in to excess ceases to please, or even causes disgust, is often unable to turn his attention to more serious pursuits. There is not enough stimulus; he does not need to gain a livelihood; he cannot hope to succeed, or some such reason occurs to him, and prevents him from even making an attempt. But there is something so new in the idea of another world and another existence, which might tempt him to read books, weigh arguments, and an interest might be created which would act as a stimulus to the brain, and at last bring back an interest in the life which he had considered worse than lost to him. In order to accomplish this, the doctor, whom I am supposing to be in the place of adviser, must use great tact, and be extremely careful to make the patient understand that he is inviting his interest to an attractive study, and not preaching him a sermon. He should have the names of a few good books to recommend as a beginning, and should be ready to suggest the name of some one who would be willing to assist him. This person could most naturally be a clergyman, who should be prepared to help in the same spirit as the doctor began. I would suggest that in most cases it would be better not to advise the study of Christianity in the first instance. Such people as I have described have very often anything but pleasing remembrances of early Christian teaching, and too often Christian theology is of a gloomy and repelling kind. Let our patient take a wider view of the subject first, and turn his attention to non-Christian systems. Four very interesting little works have been written on non-Christian systems; those on Mahommedanism and Buddhism are especially interesting. Other larger works may easily be found. These books cannot fail to interest, and may arouse a desire to know more about Christian theology and Christian philosophy than can be obtained from reading ordinary religious works. Books on Church History and writings of rationalistic authors, with the answers given by the best of the orthodox school, are examples of what might be found of an interesting nature. Once prevail on such a patient, however hopeless his case might be before, to believe that another existence is in store for us after this life, and that it will be of a much happier and very different kind to this imperfect existence we are living now, and I believe we should have a stimulus capable of arousing his interest. Then, and only then, will sea-air, change of scenery and people, and perfect quiet be of the service we want. They will assist us when once we can make our patient to see that life is worth living, and we may find the strange but satisfactory result that the hope of another world has changed the present life from a misery into a pleasure; for health of the mind will often produce health of the body when all other treatment has failed.

Yours truly,

E. DOWNES, L.R.C.P. Lond.,
Medical Missionary of Kashmir.

August, 1880.

Gratis.—We cannot recommend such a course as our correspondent advises, but would earnestly dissuade him from it. Where would the profession land if every practitioner announced in a handbill his specialty, and proclaimed what he thinks his superior knowledge? We would urge "Gratis" to believe that if he only learns to labour and to wait, his good knowledge will be found out both by the public and by his professional brethren, when a pleasure and a respect will accrue to him which are not to be had by advertising.

Mrs. C. L. Murray.—The wife of a medical man, who is disabled by sickness, should apply to the Secretary of the Royal Medical Benevolent Fund.

A Constant Subscriber.—It is the rule generally followed.

EFFECTS OF AN EXCLUSIVE MEAT DIET.

To the Editor of THE LANCET.

SIR,—In answer to the query of "Dietetic," I may point out the fact that the diet of the ganchos of South America consists almost exclusively of meat, and of a kind not containing much fat; they eat occasionally a little maize or roasted mandioc (Cassava manihot); but for weeks together they live entirely upon meat, and certainly enjoy excellent health. I do not remember having seen any trace of scurvy amongst them. But I can give a case more to the point in my personal experience. While I was a prisoner in Paraguay, during the Brazilio-Paraguayan war, my captors gave me literally no other food during two months than meat (about half a pound to a pound per diem) and water, and for the next month a similar diet, but with less meat, and about thrice a week a very thin cake, certainly not weighing more than an ounce, of cassava meal. I suffered much from thirst, for very little water was given to the prisoners, but still more from a craving for vegetable food. Nevertheless, my health was excellent the whole of the time. I became, of course, as lean as a starved greyhound; but when I was rescued by the expedition sent by the Government of the United States for that purpose—under the fortunate mistake that I was a subject of the Republic—I was really as well as I had ever been during a singularly healthy life.

As to the effects of beef-tea and Liebig's extract, it is much to be regretted that they are still regarded by the public and by a few amongst ourselves as food instead of stimulants; and I would suggest that their injurious effects when used in the former capacity are due to the fact that their main constituents are the débris of worn-out cells, kreatine, inosite, kreatinine, and urea—excretive matters that the blood would normally have got rid of, and that beef-tea, except in the absence of uric acid, differs but little from healthy urine. I published some years ago a paper in THE LANCET, giving analytical proof of this.

Yours truly,

Stourport, Sept. 27th, 1880. G. F. MASTERMAN.

A. S. G.—As Malta belongs to Great Britain, British qualifications confer the right of practice. But, in other cases, in order to practise there, it is necessary to pass the Medical Board of the Island. Even graduates of Malta have to do this. According to Hardwicke, in his work entitled "Medical Education and Practice," there is an excellent opening in Malta for one or two well qualified British practitioners. The prevalent diseases there include an endemic remittent fever common in the Mediterranean islands.

Mr. Henry Love.—Application should be made to the Registrar of the University and the Secretary of the College.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your article in last Saturdy's LANCET on the Cork Fever Hospital Inquiry, it is stated that Dr. Macnaughton Jones "was supported in his argument upon the nature and uses of pilocarpin by *Dr. Gavan Duffy*, of Dublin,"—a misprint, which I would ask you kindly to correct, for the name of,

Your obedient servant,

GEORGE F. DUFFEY, M.D.

Fitzwilliam-place, Dublin, Sept. 28th, 1880.

MEDICAL ADVERTISERS ABROAD AND AT HOME.

THE Secretary of the Board of Examiners of the Medical Society of the State of California has been directed to notify certain medical gentlemen in San Francisco—licentiates of the Board—that their advertisements in the Sunday papers, their handbills, and local signs, are unprofessional according to the code of ethics and the medical law, and that the Board requests them to withdraw the same. We get many things from America; would that it were possible to import an energetic Board to stop medical advertising amongst us!

Astonished.—The habit is a bad one; but it is to be rectified by remonstrance and friendly discussion.

A QUESTION OF TREATMENT.

To the Editor of THE LANCET.

SIR,—I am anxious to get some hints to the successful treatment of the following case. Will you kindly afford space to my letter?

The patient, a fairly healthy-looking man, of about twenty-six, is suffering, and has suffered for the last ten years, from a copious eruption of acne pustulosa on the chin and lower part of the cheeks. This eruption is accompanied by spots and patches of soreness upon the mucous membrane of the side of the tongue and lips. These spots are whitish in colour and semi-transparent. Excessive soreness is a marked feature of the spots upon the mucous membrane. The sides of the tongue present some thickening and slight furrowing, but not to any great extent. The patient's general health is very good, the only motive that induced him to apply to me being his anxiety to get rid of the local inconvenience. For various reasons I must exclude syphilis as the *fons et origo mali*. For some weeks I have administered the following with marked benefit: Iron and citrate of ammonia, one drachm and a half; iodide of potassium, one drachm; tincture of calumba, one ounce; chlorate of potash, two drachms and a half; glycerine, one ounce; water to eight ounces; one ounce to be taken three times a day. Much to my annoyance, on administering the above without the chlorate of potash, the spots and soreness of the tongue have returned with their former intensity, although the skin eruption continues to improve under the altered medicine. Can any of your correspondents give me any suggestions as to the local and general treatment of the case in reference to the tongue? Such is the soreness of the organ caused by this eruption that the patient is seriously inconvenienced both in speaking and eating. For local application I have used the glycerinum boracis of the Pharmacopœia, but without much benefit. The patient has some chronic soreness and redness of the edges of the eyelids, but no marked indications of the strumous diathesis. Any suggestions in reference to the treatment of the case will be highly valued. Perhaps some of your readers will be good enough to state their experience in cases of a similar description.

I am, Sir, yours faithfully,

September, 1880. J. B. C.

A SELF-SUPPORTING DISPENSARY AT LEWISHAM.

WE are obliged for a copy of the Rules of a Self-supporting Dispensary at Lewisham. We take deep interest in any reasonable scheme for accommodating good medical practice to the means of the working classes, and we shall be glad to hear of the success of this particular experiment. We do not like to speak too critically, lest such experiments should be discouraged. It seems to us that the monthly fees for children—2d. (up to three, more than three are not to be paid for)—are too low. Another great omission is that of any rule for excluding unfit persons.

FOUL DUSTBINS.

To the Editor of THE LANCET.

SIR,—At an inquest held a few days ago on the body of a child who died at Lisson-street, Marylebone, the coroner, Dr. Hardwicke, commented strongly on the serious injury to health occasioned by the present system of allowing dustbins to remain in London and its environs for lengthened periods without being cleaned out. Perhaps you would bring your influence to bear on this matter, which certainly appears to me to require looking into.

An uncleansed dustbin, with its festering mass of decaying animal and vegetable refuse, particularly in hot weather and in crowded districts, is a grave evil, as anyone who has given the slightest attention to the matter of hygiene will allow, and the present system of having them emptied once in a fortnight is simply absurd. Of course, those who are addicted to cleanly habits can have their dust receptacles attended to oftener by entering into a private contract with the dustmen; but those whose means are straitened or who cannot afford this luxury, must be content to endure their pestilence-breeding bins, with all the foul odours and health-depressing influences attached to them, until such times as it may please the dustmen to give them a dirty clean out, the visits of these gentlemen being, like those of the angels, "few and far between" in the poor and crowded districts of this great city.

I have frequently been told by members of the working classes that it is no unusual thing for the dustbins in their neighbourhood to remain unattended to for months at a time; and when they appeal to the dustmen in charge of any passing cart, they are either laughed at, or met by a volley of abuse for their pains.

Surely such a state of things, which is easy of remedy, should not any longer be permitted! Yours truly,

G. STANLEY MURRAY, M.D.

Meadowside, Putney, Sept. 29th, 1880.

MANUAL OF HYGIENE FOR INDIA.

THE following is the official notification of the prize offered by the Government of India for a "Manual of Hygiene," to which we have referred in a previous number of THE LANCET:—

"£100 PRIZE.—A prize of £100 is hereby offered by the Government of India for the best 'Manual of Hygiene' for the use of the British soldier in India. The work must be in clear and simple English, without theories, and thoroughly practical, showing the ordinary causes affecting health, the special dangers to health to which British soldiers are exposed in India, and more particularly during their first years in the country, and the best means by which these dangers may be averted. The work which, if accepted, will be printed at the public expense, and become the property of the State, must not cover more 50 or 60 pages of print of small pica octavo size. Competing primers must be sent to the Secretary to the Government of India, in the Military Department, Calcutta, so as to arrive not later than the 31st March, 1881. Each should bear a motto, and have a sealed envelope attached, with the same motto outside, and the name of the author within. The prize will be adjudicated by a Committee, consisting of the Surgeon-General, Her Majesty's Forces in Bengal and Principal Medical Officer, Her Majesty's British Forces in India, the Sanitary Commissioner with the Government of India, and an Officer of the Quartermaster-General's Department to be appointed by his Excellency the Commander-in-Chief; but the Government of India will not award the prize unless a manual is produced in all respects suitable for the purposes for which it is required.

"ALLEN JOHNSON, Colonel,

"Simla, 16th July, 1880." "Sec. to the Government of India.

J. C.—The letter contains no data upon which an opinion as to the nature of the case can be formed. — 1. Our correspondent would have been perfectly justified in expressing to Mr. P. during the consultation, and to the friends in Mr. P.'s presence after the consultation, an opinion different from that of Mr. P.—2. There was no objection to his expressing an opinion of the case to the consultant.—3. We cannot see from "J. C.'s" letter sufficient reason for communicating with the coroner.—4. If the uterus was anatomically examined after death, and proved to have contained an ovum recently, a certificate stating the cause of death to be abortion would be false. Unless such proof was discovered, the certificate cannot be said to be false.—5. We cannot say whether the case should be reported in THE LANCET or not until we see the notes.

Mr. George Shaw.—The Students' Number of THE LANCET, Sept. 11th, gives the particulars required in full.

EXAMINATIONS AND THE EXAMINING BODIES.

To the Editor of THE LANCET.

SIR,—As one about leaving a large metropolitan medical school, may I be allowed to say a few words on the subject of examinations and diploma-granting bodies. I have, more especially during the last two years, had opportunities of mixing with men on the point of going up for their diplomas, have worked with them in the wards, in the out-patient department, and seen their ratio of marks at the test examinations, and so claim to have a more intimate knowledge of students than examiners or teachers at hospitals can possibly gain. I wish to speak now more especially of those who come to the hospital, and do as little work as possible, simply the compulsory appointments, take the easiest examination they can find, and then launch out into practice. Now, I say are there not many of these men who fail at the test examination of their hospital, and others who go up under protest and are plucked, three months after will leave London, and return full-blown physicians and surgeons (in the broad acceptance of the term), to the astonishment of their fellow-students? Given a man is through in Surgery at the College, I assert it is simply a matter of £ *s. d.* to obtain a medical qualification. Why do men leave London for an extra diploma, when studying at a metropolitan school, when what they require is within walking distance? Simply because the examinations are easier, and carry certain advantages with them; for it is an advantage to a general practitioner to style himself "Dr." The majority of the British public never will understand medical qualifications; there are too many of them. Now with 22,000 men on the Register, and still largely on the increase, I say it is high time something was done to make the test more equal. If questions of a difficult character are shown me as set for the written papers, I assert the answers many examining bodies require are of a very low standard. I am sure many men holding the senior appointments at hospitals will bear me out when I say it is terribly unjust, in these days of keen competition, to those who have worked hard to gain a good knowledge of their profession to see the number of men who slip through these loopholes, and at the same time know it is utterly impossible in the first instance for the public to discriminate between the two.

It is not for me to suggest a remedy; but I say it is the duty of examiners and the leading members of our profession to do something, instead of sitting mute and helplessly waiting for a Conjoint Scheme to be passed. I am, Sir, your obedient servant,

September, 1880. ALPHA.

Dr. Sargent, (Shadwell.)—See the General Order of the Local Government Board respecting the appointment and duties of the vaccination officers. Section 10 of the Schedule attached makes provision for "tracking fugitives," as our correspondent terms it.

F.R.C.S.—We know of no recent means: only the old method of microscopical examination of the blood-corpuscles, and measuring their size.

Mr. James Startin.—In an early number.

GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—I would not have intruded on your space, but to make a remark on the concluding paragraph of Sir Thomas Acland's letter, published this day, is, I think, a necessity. He appeals to old Guy's men to rally together on October 1st, and to "judge for themselves whether there is any hindrance in respect of medical science, or observation, or practice in the way of the students or their teachers." Perhaps not. But are the treatment and necessities of the sick inmates secondary to these? I have always believed that these were of primary importance. Do not the bickerings of the governors tend to show the public that Sir Thomas Acland's view is one that finds favour in the board-room?

Yours truly,

Sept. 25th, 1880. AN OLD GUY'S MAN.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Cavafy; Dr. Hughlings Jackson; Dr. Donkin; Mr. S. Gamgee, Birmingham; Mr. T. Holmes, London; Prof. Clay, Birmingham; Mr. MacCormac; Mr. G. J. Symonds; Dr. H. A. A. Nicholls, Dominica; Mr. R. Hart; Mr. Schleman, London; Mr. S. B. Mason, Pontypool; Mr. N. Grattan, Cork; Mr. H. Morris, London; Mr. Wootton; Mr. Walter Fergus; Dr. Blomfield, Lynn; Mr. Willson, London; Dr. Bayes; Mr. Walford; Dr. G. F. Duffey, Dublin; Mr. Oran; Mr. O'Callaghan; Mr. W. Pye, London; Mr. C. MacDowall; Mr. S. Walker, Middlesbrough; Messrs. Parke, Davis, and Co., Detroit; Mr. Clarke, Somerset East, S. Africa; Mr. G. Mee, London; Dr. Lloyd, London; Dr. P. Tytler, Cheetham; Mr. Lindeman; Mr. Roth, Brighton; Mr. J. D. Campbell, London; Mr. Masterman; Mr. H. Love, Alresford; Dr. J. Cameron, Epworth; Dr. Lyon, Glasgow; Mr. Nicholls, Chelmsford; Mr. Walker, London; Dr. A. Clark, London; Mr. H. C. Burdett, London; Mr. J. M. Wilson; Mr. Warrington Haward; Mr. J. Robinson, Liverpool; Mr. F. Green, Settle; Mr. Turner; Mr. Crackle, Old Beach; Mr. Williams, Lincoln; Mr. Owens; Mr. Elliott, Manchester; Mr. Cornish, Manchester; Mrs. Phillips; Mr. Vitali, London; Dr. M'Naughton, Blackpool; Messrs. Christy, London; Mr. Reece; Mr. Orchard, Notting-hill; Mr. Kempton, London; Dr. R. Lewins, London; Astonished; An Old Guy's Man; Anti-puff; A Constant Reader, Dublin; Diogenes; G. G. J.; F.R.C.S.; A Poor Assistant; M.D.; Oui; Provident Dispensary; W. G. C. K., Kensington; Madras Retired; A Twenty Years' Subscriber; Veritas, Sheffield; Another L.R.C.P. Ed.; S. S. S.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Whalley, Bradford; Mr. Robertson, Glasgow; Mr. Feeld, London; Mr. Blair, Alnwick; Mr. Cane, Helmsley; Mr. Jeffries, Chesterfield; Mr. Sheehy; Messrs. Wilson and Son; Dr. Strickleham, Kidsgrove; Mr. G. Brown, London; Mr. Lewis, Dover; Dr. Heelis, Hampstead; Mr. Buckell; Mr. Morris, Bourne; Mr. Elmslie, Westbury; Mr. Burgess; Dr. Brady, Derby; A. B. C., Eastbourne; M.R.C.S., Leicester; Lex; G. G., Stockton-on-Tees; Medicus, Newcastle-on-Tyne; Medicus, London; F.R.C.S.; A. B., Gloucester; Fides, London; R. G.; P. E. H.; B. B., Lambeth; Veritas; Y.; Medicus, Talke; W. Q.; Medicus, Nottingham; P., F.R.C.S.; Senega; Omega; Thanet, Hounslow; X. Y. L., Lowestoft; T. F. B., Newcross; M.R.C.S.; P., Holloway; Surgeon, Brighton; E. F., Brasted; Delta, Reading; Beta; Medlands; J. F. C.; &c.

Kentish Mercury, La Escuelda de Medicina, Builder, Pharmaceutical Journal, Chemists' Journal, San Francisco Western Lancet, Science, Society Times, Deutsche Medicinal-Zeitung, Barmouth Advertiser, Concours Médical, Bullettino della Commissione Speciale d'Igiene del Municipio di Roma, Medical Herald, Birmingham Daily Gazette, Liverpool Echo, Dominican, Brierley Hill Advertiser, Birmingham Daily Mail, &c. &c., have been received.

Medical Diary for the ensuing Week.

Monday, Oct. 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, Oct. 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Oct. 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimen: Dr. Poole (Sidcup) will show a Girl with Double Congenital Dislocation of the Hips.—Paper: Professor Stephenson, M.D. (Aberdeen), "On the Rotatory Action of the Forceps."—And other communications.

Thursday, Oct. 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

Friday, Oct. 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—7 P.M. Conversation and Exhibition of Objects.
CLINICAL SOCIETY OF LONDON.—8½ P.M. Surgeon-Major Curran, "On a Case of Mutilation of the Face by a Bear."—Dr. Gowers: "A Family affected with Locomotor Ataxy."—Mr. Spencer Watson, "On a Case of Eyeball Tension treated by Sclerotomy."—Dr. Stephen Mackenzie, "On a Case of Elephantiasis of the Leg treated by Elastic Bandaging."—Dr. Lees and Mr. Bellamy, "On a Case of Traumatic Epilepsy treated by Trephining."

Saturday, Oct. 9.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

THE PUBLISHER regrets that he cannot accede to a request which has been made to allow the distribution of THE LANCET from the Printing-office, in order to insure early delivery. No parcel of less than 500 copies is sent *direct* from the Printer's. The general Subscribers are supplied through our special agency, and the trade and casual sale is met at the office in Bedford-street.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

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Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom.

The postal arrangements relating to the distribution of THE LANCET will be considered from time to time in the interests of subscribers.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

A First Issue is made each week at seven o'clock on Friday morning, *for the Wholesale Houses only*.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.